

COLUMBIA LIBRARIES OFFSITE
HEALTH SCIENCES RESTRICTED



HR00233536

RECAP

Annual Report

of the...

Department of

Health

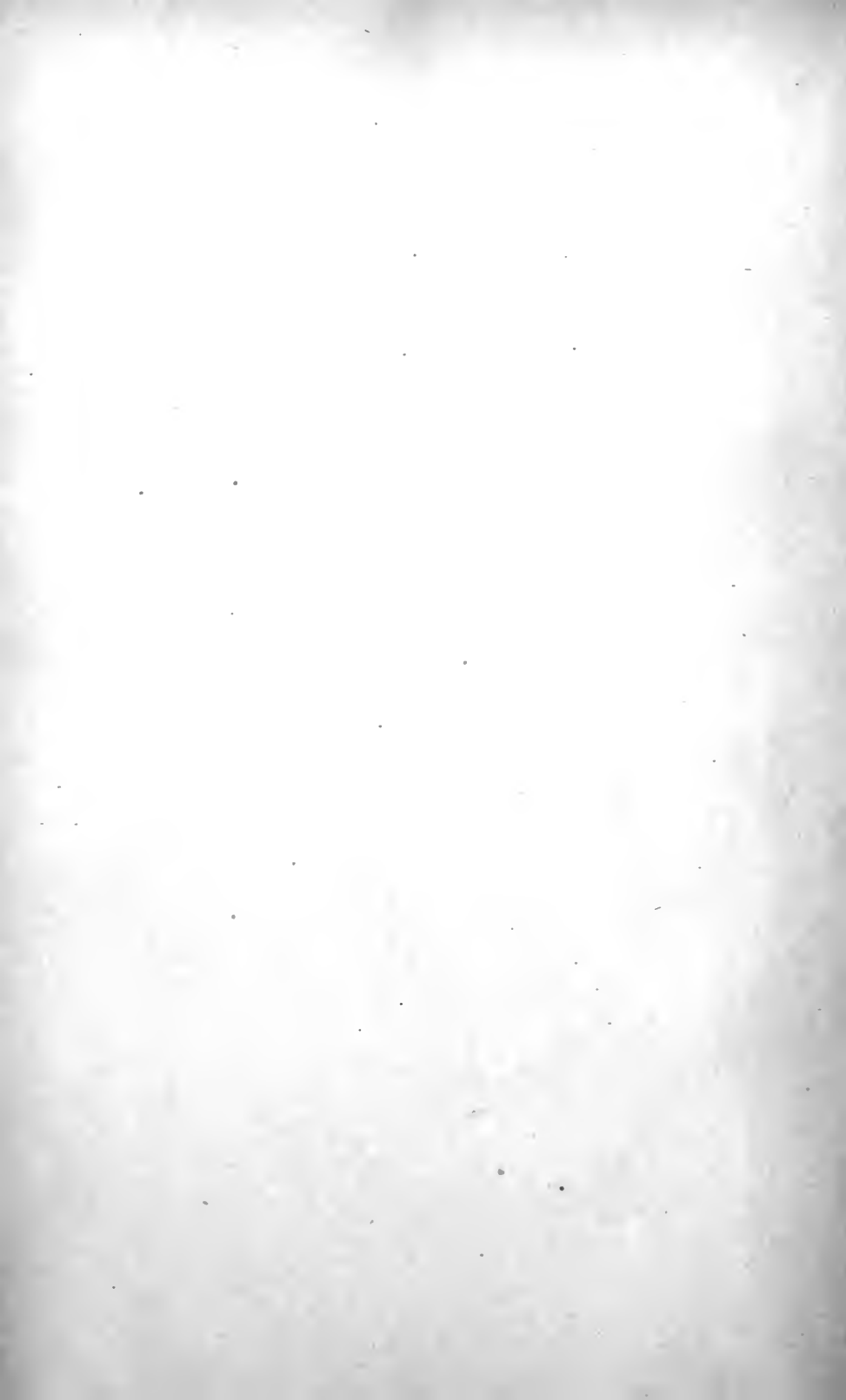
of...

The City of New York

1909



Digitized by the Internet Archive
in 2010 with funding from
Columbia University Libraries



ANNUAL REPORT

OF THE

BOARD OF HEALTH

OF THE

DEPARTMENT OF HEALTH OF THE CITY OF NEW YORK

FOR THE

YEAR ENDING DECEMBER 31, 1909.



NEW YORK:
M. B. BROWN PRINTING & BINDING CO.,
NOS. 49 TO 57 PARK PLACE.

1911.

M. B. BROWN PRINTING & BINDING CO.,
49-57 PARK PLACE, NEW YORK.



TABLE OF CONTENTS.

	PAGE
Board of Health.....	5
Honorary and Consulting Officers.....	9
Medical Advisory Board.....	9
Executive Officers	7
Organization of the Department.....	7
Medical Board of the Willard Parker and Riverside Hospitals.....	11
Report for the Year 1909—	
Letter of Transmittal.....	13
Sanitary Bureau—	
Division of Inspection:	
Applications for Permits.....	14
Refuse Material	15
Stables	15
Slaughter Houses	16
Poultry Slaughter Houses.....	17
Drainage in Outlying Districts.....	17
Mosquitoes	18
Public Water Supplies.....	24
Smoke	24
Barber Shops	25
Lodging Houses	26
Tent Life	26
Bathing Establishments	27
Oysters	27
Liquor Traffic	27
Gasoline	28
Health Squad	28
Milk	55
Division of Contagious Diseases:	
Personnel	59
Veterinarians	61
Dogs and Dog Bites.....	62
Disinfectors and Disinfections.....	62
Animal Inspection	64
Hospitals and Dispensary for Contagious Eye Diseases.....	64
Division of Communicable Diseases:	
Organization	87
Summary of Inspections.....	87
Sanitary Supervision of Pulmonary Tuberculosis.....	88
Tuberculosis Register	90
Tuberculosis District Inspection.....	91
Tuberculosis Death Rate.....	92
Tuberculosis Clinics	94
Women's Auxiliary to Tuberculosis Clinics.....	98
Tuberculosis Boat Camps.....	98
General Tuberculosis Hospitals in New York City.....	98
History of Cases Discharged from Otisville.....	98
Typhoid Fever	100
Cerebro-Spinal Meningitis	109
Administration of Diphtheria Antitoxin.....	110
Injection of Diphtheria Antitoxin.....	111
Intubation and Immunization.....	112
Malaria	114

TABLE OF CONTENTS.

	PAGE
Sanitary Bureau—Continued.	
Division of Laboratories:	
Research Laboratory	116
Vaccine Laboratory	118
Chemical Laboratory	119
Division of Hospitals:	
Tuberculosis Sanatorium at Otisville.....	121
Cost of Maintenance of Riverside, Kingston Avenue and Willard Parker Hospitals.....	123
Reception Hospital	124
Willard Parker Hospital.....	125
Scarlet Fever Hospital.....	126
Riverside Hospital	127
Kingston Avenue Hospital.....	128
Division of Food Inspection:	
Organization	143
Method of Supervision.....	143
Fire and Marine Losses.....	144
Ice Cream	144
Bakeshops and Confectionery Stores.....	145
Eggs	145
Chopped Meats	145
Restaurants	145
False Labeling	145
Drug Stores	145
Lard	146
Comparative Statistics	146
Division of Child Hygiene:	
Organization	163
Functions	163
Supervision and regulation of Midwifery.....	163
Boarding Out of Children.....	173
Orphan Asylums and Day Nurseries.....	175
Employment Certificates	192
Clinics	171
Home Visits to Mothers.....	171
Summer Corps	174
Medical Inspection and Examination of School Children.....	177
Inspection for Contagious Diseases.....	179
Inspection for Trachoma.....	182
Inspection for Tuberculosis.....	182
Examination for Physical Defects.....	184
Teeth	184
Defective Vision	187
Defective Hearing	187
Defective Nasal Breathing	187
Hypertrophied Tonsils	188
Malnutrition	188
Orthopedic Defects	188
Other Physical Defects.....	189
Examination for Athletic League.....	190
Secretary's Report	197
Report of Corporation Counsel.....	200
Bureau of Records.....	218

BOARD OF HEALTH.

December 31, 1909

President of the Board,
THOMAS DARLINGTON, M. D.
Commissioner of Health.

ALVAH H. DOTY, M. D. . . . *Health Officer of the Port.*

THEODORE A. BINGHAM, . . . *Commissioner of Police*
(to July 1, 1909).

WILLIAM F. BAKER, *Commissioner of Police*
(July 1, 1909, to December 31, 1909).

General Medical Officer of the Department,
HERMAN M. BIGGS, M. D.

Secretary,
EUGENE W. SCHEFFER.

Secretaries to the Commissioner.
JOHN P. HILLY.
CHARLES D. O'CONNELL.

OFFICERS.

HERMANN M. BIGGS, M. D.,
General Medical Officer.

WALTER BENSEL, M. D.,
Sanitary Superintendent.

ALONZO BLAUVELT, M. D.,
Assistant Sanitary Superintendent, Brooklyn.

TRAVERSE R. MAXFIELD, M. D.,
Assistant Sanitary Superintendent, Manhattan.

MARION B. McMILLAN, M. D.,
Assistant Sanitary Superintendent, The Bronx.

JOHN H. BARRY, M. D.,
Assistant Sanitary Superintendent, Queens.

JOHN T. SPRAGUE, M. D.,
Assistant Sanitary Superintendent, Richmond.

WILLIAM H. GUILFOY, M. D.,
Registrar of Records.

CHARLES J. BURKE, M. D.,
Assistant Registrar of Records, Manhattan.

SYLVESTER J. BYRNE, M. D.,
Assistant Registrar of Records, Brooklyn.

ARTHUR J. O'LEARY, M. D.,
Assistant Registrar of Records, The Bronx.

ROBERT CAMPBELL, M. D.,
Assistant Registrar of Records, Queens.

J. WALTER WOOD, M. D.,
Assistant Registrar of Records, Richmond.

JAMES McC. MILLER,
Chief Clerk.

RUSSELL RAYNOR,
Chief of the Division of General Sanitary Inspection.

DANIEL T. KENNEY,
Borough Chief of the Division of General Sanitary Inspection, Manhattan.

A. T. TALLMADGE, M. D.,
Borough Chief of the Division of General Sanitary Inspection, Brooklyn.

CHARLES F. SPENCER, M. D.,
Borough Chief of the Division of General Sanitary Inspection, The Bronx.

HERMAN BETZ, M. D.,
Borough Chief of the Division of General Sanitary Inspection, Queens.

THOMAS F. MCCARTHY,
Borough Chief of the Division of General Sanitary Inspection, Richmond.

ALONZO BLAUVELT, M. D.,
Chief of the Division of Contagious Diseases

JOHN F. WHITMYER, M. D.,
Borough Chief of the Division of Contagious Diseases, Manhattan.

ROBERT H. HERKIMER, M. D.,
 (January 1, 1909, to June 10, 1909),
 S. DANA HUBBARD, M. D.,
 (June 17, 1909, to December 31, 1909),
Borough Chief of the Division of Contagious Diseases, Brooklyn.

W. WARREN TALLY, M. D.,
Borough Chief of the Division of Contagious Diseases, The Bronx.

JOSEPH P. SHERIDAN, M. D.,
Borough Chief of the Division of Contagious Diseases, Queens.

FRANCIS DE REVERE, M. D.,
Borough Chief of the Division of Contagious Diseases, Richmond.

JOHN S. BILLINGS, JR., M. D.,
Chief of the Division of Communicable Diseases.

S. E. SPRAGUE, M. D.,
Borough Chief of the Division of Communicable Diseases, Manhattan.

HORACE GREELEY, M. D.,
Borough Chief of the Division of Communicable Diseases, Brooklyn.

W. T. KLEIN, M. D.,
Borough Chief of the Division of Communicable Diseases, The Bronx.

VICTOR NEESEN, M. D.,
Borough Chief of the Division of Communicable Diseases, Queens.

H. W. PATTERSON, M. D.,
Borough Chief of the Division of Communicable Diseases, Richmond.

SARA J. BAKER, M. D.,
Chief of the Division of Child Hygiene.

JOHN J. CRONIN, M. D.,
Borough Chief of the Division of Child Hygiene, Manhattan.

R. H. WILLIS, M. D.,
Borough Chief of the Division of Child Hygiene, Brooklyn.

BAYARD C. FULLER,
Supervising Food Inspector.

WILLIAM H. PARK, M. D.,
Director, Research Laboratory.

JOHN H. HUDDLESTON,
Director, Vaccine Laboratory.

ROBERT J. WILSON, M. D.,
Superintendent of Hospitals.

JAMES P. ATKINSON,
Chemist.

HONORARY AND CONSULTING OFFICERS.

Medical Advisory Board.

EDWARD G. JANEWAY, M. D.	WILLIAM M. POLK, M. D.
JOSEPH D. BRYANT, M. D.	T. MITCHELL PRUDDEN, M. D.
FRANCIS P. KINNICUT, M. D.	ABRAHAM JACOBI, M. D.
A. ALEXANDER SMITH, M. D.	JOHN WINTERS BRANNAN, M. D.
L. EMMET HOLT, M. D.	JOHN A. McCORKLE, M. D.

Consultants.

CLARENCE F. CHANDLER, PH. D.	<i>Consulting Sanitarian.</i>
CLARENCE C. RICE, M. D.	<i>Consulting Laryngologist.</i>
GEORGE HENRY FOX, M. D.	<i>Consulting Dermatologist.</i>
ROGER S. TRACY	<i>Consulting Statistician.</i>
DANIEL DRAPER, PH. D.	<i>Consulting Meteorologist.</i>
STEVENSON TOWLE	<i>Consulting Engineer.</i>
ARTHUR B. DUEL, M. D.	<i>Consulting Otologist.</i>
SIMON FLEXNER, M. D.	<i>Consulting Pathologist.</i>
ERNST J. LEDERLE, PH. D.	<i>Consulting Sanitarian.</i>

MEDICAL BOARD OF THE WILLARD PARKER AND RIVERSIDE HOSPITALS.

J. WINTERS BRANNAN, M. D., *President.*

HENRY W. BERG, M. D., *Secretary.*

Ex-Officio Members.

The Commissioner of Health.

The General Medical Officer.

The Director of the Research Laboratory.

The Chief Medical Inspector, Division of Contagious Diseases.

Consulting Physicians to the Willard Parker and Riverside Hospitals.

J. WINTERS BRANNAN, M. D.

W. P. NORTHRUP, M. D.

Attending Physicians to the Willard Parker and Riverside Hospitals.

JOSEPH E. WINTERS, M. D.

HENRY D. CHAPIN, M. D.

ALBERT T. SWAN, M. D.

LOUIS FISCHER, M. D.

HENRY W. BERG, M. D.

JOHN HOWLAND, M. D.

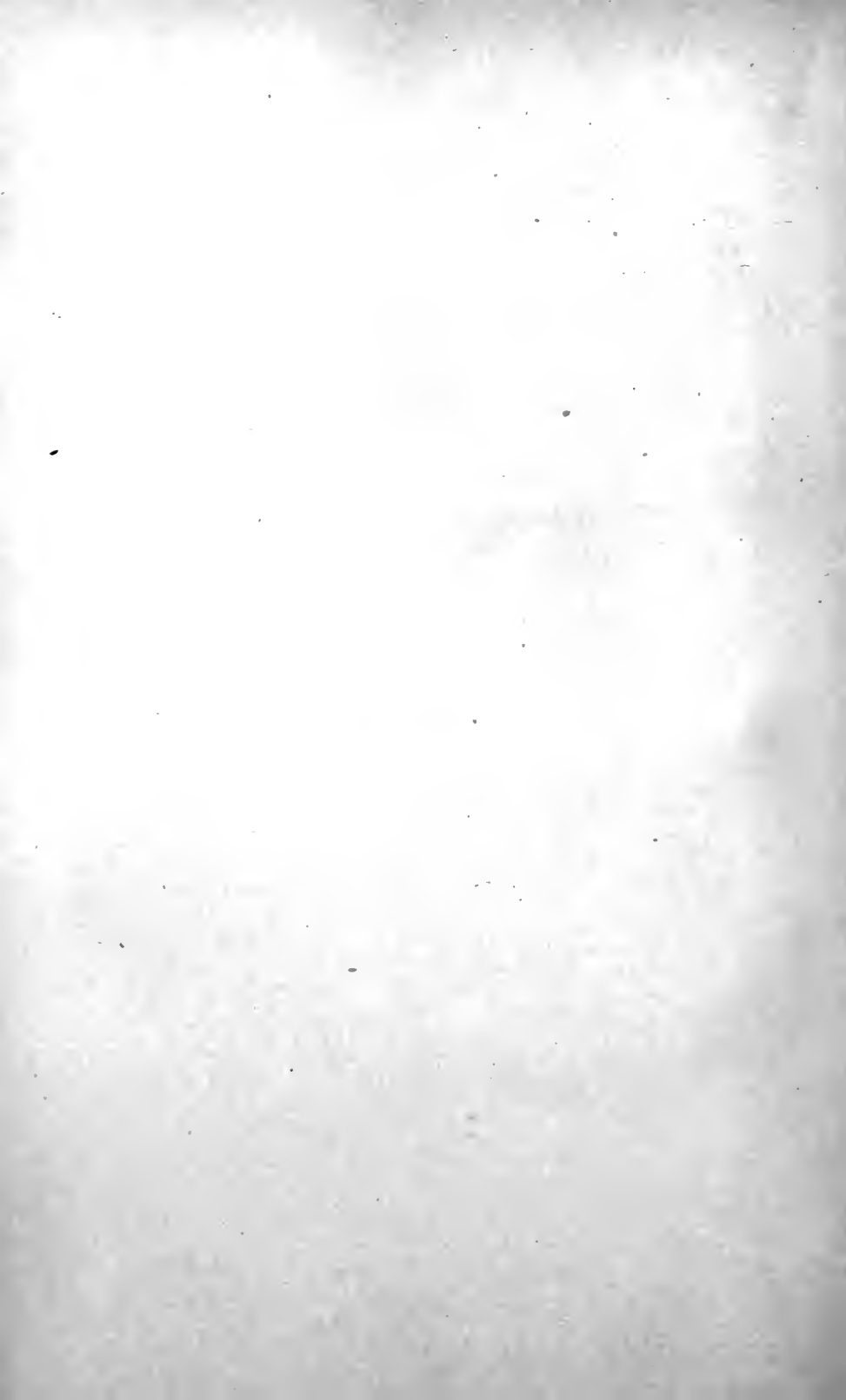
MATTHIAS NICOLL, JR., M. D.

Visiting Physicians to the Sanatorium for Tuberculosis at the Riverside Hospital.

S. A. KNOFF, M. D.

WILLIAM J. PULLEY, M. D.

JOHN H. HUDDLESTON, M. D.



DEPARTMENT OF HEALTH.

REPORT FOR THE YEAR ENDING DECEMBER 31, 1909.

NEW YORK, September 27, 1910.

To his Honor the Mayor of The City of New York:

SIR—I have the honor to transmit herewith the report of all the operations of the Department of Health of The City of New York, during the year ending December 31, 1909, as required by Section 1168 of the Greater New York Charter.

Respectfully yours,

EUGENE W. SCHEFFER, Secretary.

DIVISION OF GENERAL SANITARY INSPECTION.

The Division of General Sanitary Inspection is the oldest Division in the Department of Health. At the time that the Department commenced its activities, all inspectors were appointed as sanitary inspectors, and subsequently they were divided into two classes, viz.: lay sanitary inspectors and medical sanitary inspectors.

The medical sanitary inspectors not only performed sanitary work, but in addition, work of a medical nature in relation to infectious diseases. As the work of the Department increased, it was divided into the Sanitary Division and the Division of Contagious Diseases. The larger percentage of inspections of the Department of Health devolve upon this Division. A great deal of the work originates through complaints received from citizens, either in person, by telephone, through the mails or from the other Departments.

The administration of the work is carried on through the branches in each Borough of the Division, each having a Borough Chief in charge. Inspectors are assigned to each Borough in accordance with its size and population. The respective Boroughs are divided into districts, to each of which is assigned a sanitary inspector, who is held responsible for the district to which he is detailed.

He is required to devote all of his time during working hours, when not engaged in complying with direct orders of the Department, to original investigations of the sanitary conditions existing within his district, submitting reports when necessary upon which notices or orders may be issued. This Division further requires its inspectors to investigate, submit reports, and make recommendations upon the numerous applications for permits of various kinds, which are granted by the Board of Health.

Each inspector is also required to visit, from time to time, the premises in his district for which permits have been granted, and to see that the premises in question are maintained in a sanitary condition and in accordance with the existing law.

The reports upon which all notices and orders are issued, are handled through the office of the Chief of the Division of General Sanitary Inspection, with the result that all papers of the indicated character emanating from the Department of Health are uniform in substance, and recommendations for abatement of nuisances are couched in the same language throughout the entire city.

APPLICATIONS FOR PERMITS.

The granting of permits for various purposes has been conducted with the same regulations in force as have been prescribed in former

General Sanitary Inspection.

years. No changes have been made in the character of permits issued. The most frequent permits found necessary are the following:

- To maintain manure dumps.
- To yard and keep cattle, swine, geese, ducks and fowl.
- To keep birds and small animals for sale.
- To keep cows.
- To maintain slaughter houses.
- To render fat and lard.
- To keep stables in cellars.
- To keep bathing establishments.
- To keep lodging houses.
- To use well water.
- To operate smoke houses.
- To manufacture carbonated and mineral waters.
- To cart offensive materials.
- To sell milk.
- To pasteurize milk:

REFUSE MATERIAL.

The collection and transportation of refuse materials is a public necessity, and one of growing importance. Wagons engaged in this business are all operated under permits issued by this Division. All permits of this character expire within the calendar year, and are subject to revocation at any time for violation of their provisions.

The members of the Health Squad are required to exercise a constant supervision over these wagons and mode of conducting the business, for which permits have been issued. In 1909, permits were granted by this division as follows:

	Manhattan.	Bronx.	Brooklyn.	Queens.	Total.
Manure.....	811	138	107	436	1,492
Fat and Bone.....	199	13	24	37	273
Swill.	43	21	....	1	65
Garbage.....	100	....	....	12	112
Street-Sweepings.....	85	....	....	....	85
Ashes.....	640	3	80	....	723
Grease.....	41	....	....	....	41
Offal.....	3	....	....	....	3
Scavengers.....	1	358	420	2,091	2,870
Total	1,923	533	631	2,577	5,664

STABLES.

Frequent complaints are received in this Department as regards the condition of the stables of this City. Owing to the excessive value of land, stables are so constructed as to harbor the greatest number of horses possible in the smallest space. The wood construction of many stables becomes saturated with liquid matter in a condi-

General Sanitary Inspection.

tion of decomposition, and often gives rise to nuisance in the form of odors, and requires constant vigilance on the part of the Department. The decomposition of manure in these stables, is often the cause of additional nuisance. The enforcement of the provision of the Sanitary Code regarding its storage within buildings, and its removal every twenty-four hours unless pressed into barrels, bales or boxes to one-third its original size, the regular cleansing of the removable racks, floors and stalls, are the only effectual means of preventing a considerable number of offensive nuisances.

In the Borough of Manhattan, a large number of stables are located in cellars. To maintain these stables it is necessary to obtain a permit from the Board of Health.

No applications for permits are granted unless stables are well ventilated and lighted, and have floors of concrete or cement which are properly graded towards sewer-connected valley drains; have provision for removing manure daily, and have at least 800 cubic feet of air space for each horse. A further nuisance which may be attributed to stables is the prevalence of flies, which in turn become the carriers of filth to exposed foodstuffs throughout the markets and houses, and may become in many cases a source of infection and a carrier of disease.

There is no doubt but what the fly question is fully as serious as that of the mosquito, but unfortunately the breeding places of the fly are not so completely localized as the mosquito, consequently work over a much larger field is necessary in order to accomplish an appreciable result in the extermination of this insect.

SLAUGHTER HOUSES.

The increase in the industry of slaughtering cattle and fowl within this City, has during the past year, made necessary a series of changes as regards their supervision by the Department of Health. At various times in the past they were inspected and supervised daily by members of the Health Squad, or by the Sanitary Inspector of the district, under the charge of the Sanitary Inspector especially detailed for that purpose. For various reasons, none of these methods proved to be completely satisfactory.

The system in force at the present time requires the inspector of the district to make frequent inspections of the slaughter houses and their allied industries: at stated intervals, an additional inspection of a most thorough nature, by an inspector expressly detailed for that purpose.

As is well known there are no cattle slaughter houses in the Borough of The Bronx or in the Borough of Queens. The two slaughter house areas in Manhattan are both very small and restricted by law. The slaughter houses are so situated in the Borough of Brooklyn that they cannot be conveniently increased in number without violating the Charter restrictions; therefore, there has been no increase in the number of beef and small stock slaughter house permits. There has been, however, a very material increase in the number of poultry slaughter

General Sanitary Inspection.

houses. The following table will show the increase of poultry slaughter houses during the past year :

Poultry Slaughter Houses.

	January 1, 1909.	December 31, 1909.	Increase.
Manhattan.....	48	52	4
The Bronx.....	6	11	5
Brooklyn.....	26	45	19
Queens.....	2	3	1
Total.....	82	111	29

The slaughter houses have been kept under such thorough supervision, that in the Borough of Manhattan practically no complaints have been received against them, nor against disposal plants. Four complaints were received against the slaughter houses other than poultry in the Borough of Brooklyn.

Upon investigation the causes of these complaints were found to be minor defects, which were readily remedied, so it is safe to say that there is practically no nuisance or offense arising from this industry within the City.

POULTRY SLAUGHTER HOUSES.

More complaints have been received against poultry slaughter houses than against those where larger animals are killed. This arises from a number of causes. The character of the animals handled, and the fact that the slaughter houses are conducted in a smaller way, with but few irresponsible employees, who do not realize the necessity of scrupulous cleanliness, gives additional cause for a complaint in regard to the odors arising from such premises.

It has been necessary during the year to recommend a revocation of quite a number of permits for poultry slaughter houses. In some instances where the premises were cleaned and repaired, the permits were reissued.

HOUSEHOLD DRAINAGE IN OUTLYING DISTRICTS.

The question of drainage in a growing community is always a most serious one. The fact is, that there are many sections in this City where there are no sewer accommodations of any kind, and where a large number of houses are compelled to depend upon cesspools for the disposal of their liquid waste. In other instances, there are places where the sewers are simply intended and used to dispose of surface water and no house connections permitted. In some parts of the City there are small freshwater streams which were originally unpolluted country brooks, but during the advance of years have become open sewers. During the past year, inspections have been made along the banks of these streams. Where it was found that the house sewers were discharging into them, orders requiring the discontinuance of this

practice were issued. This, of course, entails considerable expense and hardship upon the individual owners, but it has been essential for the benefit of the community at large. In all instances where these conditions were found in addition to the action taken by the Board of Health, the matter was referred, through the proper channels, to the Borough President of the respective Boroughs. In some of the worst cases in the Boroughs of Brooklyn and The Bronx, plans have been drawn for the construction of sewers.

In connection with this subject, there is another one of vital importance. In growing communities, where there are no sewers and perhaps no public water supply, the inhabitants are compelled to depend entirely upon wells for their water supply. The construction of any considerable number of cesspools or defective privy vaults will necessarily lead to the pollution of the wells, so that where a defective cesspool or privy have been found in the immediate vicinity of a well, a sample of the water has been taken, and if upon chemical and bacteriological examination the water was found to be contaminated, its use was prohibited.

MOSQUITOES.

During the spring and early summer, a large amount of work was done by district inspectors, especially in The Bronx and Brooklyn, in reference to the cleaning, grading and draining of vacant lots in order that the smaller breeding places for mosquitoes might be removed.

This work was in connection with the work accomplished in draining the large areas of marsh lands in the Boroughs of Queens and The Bronx and in the southwesterly portion of the Borough of Brooklyn. In the furtherance of this work 4,968 acres were drained or graded and 1,638,952 lineal feet of trenches were dug, distributed as follows:

Bronx	508,996
Queens	1,129,956
Total,	<u>1,638,952</u>

At the present time there are 920 acres of undrained areas against which notices or orders have been issued, but the owners have not as yet taken steps to accomplish the desired results. They are distributed as follows:

Bronx	800
Queens (exclusive of Jamaica and Train Meadows)	<u>120</u>
Total	<u>920</u>

The work accomplished is described more in detail in the following statement prepared by the Sanitary Engineer who has had the supervision of the drainage work since its inception.

General Sanitary Inspection.

BOROUGH OF QUEENS.

Little Neck.—Early in the spring the laborers cleaned the trenches dug in 1908. Several inspections were made during the year and no evidence of mosquito breeding found.

The track of 20 acres adjoining, across the line in Nassau County, has been acquired by a progressive realty concern, who have promised to drain the entire area in the coming spring. This will not only complete the work in this entire section, but will prevent the Bayside and Douglaston section being troubled by migrations from Little Neck.

Acres drained	125
Acres undrained	None
Linear feet	15,562
Orders issued	12
Orders complied with.....	12

Bayside and Douglaston.—In the spring two laborers were sent to look after the trenches for two weeks, and the Civic Association of Douglaston furnished one man, who continued the work of general maintenance until October 1.

An appointment was also made with the Secretary of the Association, the ground was thoroughly gone over with him, and the people living along the margin of the meadows visited. They all agreed in saying that there were no mosquitoes, that the entire neighborhood was practically mosquitoless.

Acres drained	200
Acres undrained	None
Linear feet	73,300
Orders issued	48
Orders complied with.....	48

Flushing (Including Corona, Elmhurst, Head of the Vleigh, Hill Creek, College Point).—Flushing Meadow proper, from Flushing Bay to Strong's Causeway, is all drained, with three exceptions.

First, 28 acres north of Jackson avenue. The responsibility for this property is not yet definitely fixed.

Second, about 15 acres just south of Jackson avenue, the ownership of which it has been impossible to ascertain. The City laborers have worked at this when they were not needed on other work, thus keeping them employed and preventing the necessity of asking that the Department give out contract for the performance of this work.

Third, in the area south of the Long Island Railroad, and up to Strong's Causeway, about 75 acres, the ownership of which has not been definitely learned, was therefore undrained. This is now included in the large area being filled by the Brooklyn Development Company, both by dumping from cars on railroad sidings and by material arriving on scows. The filling is partly on the undrained 75 acres, and has rendered the drainage of the remainder difficult by stopping up the small creeks, which run through it and furnish natural outlets. A system of drainage has been devised to take their place, and the owners

have agreed to have the necessary trenches dug and filled before the end of the year.

Head of the Vleigh (from Strong's Causeway South).—This area has been entirely drained and is in good condition. This section will require considerable maintenance work to prevent ditches from being stopped up, as the natural drainage is poor. This is true of all the other arms of the creek running up to Corona, Elmhurst and elsewhere.

Corona and Elmhurst.—Both these districts were so congested by reason of their flat topography and winding creeks, that it has been necessary to dig long, straight canals to furnish inlet and outlet. Those in the Corona section were dug by property owners; those in Elmhurst by the Department. Both sections will require considerable maintenance care.

Mill Creek and the Bowne Mill Dam.—The drainage is as good as can be obtained under existing conditions, except one piece of property at the upper end, and which is now under contract. The trouble along Mill Creek is doubtless due to the Bowne Mill Dams, which were built over 100 years ago. Removing the dams will not remove the trouble, because the sediment of 100 years has gradually filled up the creek and the mill pond itself. The dams should be taken out and dredges will then be needed to remove the sediment. The Flushing Bay Improvement Company plans to do this as soon as it can acquire the ownership of the adjacent properties.

The canal dug by the Department along the northerly side of Mill Creek serves two purposes. First, to drain the meadow along the creek, which had become a morass; second, to furnish a straight outlet to the large amount of water constantly flowing down from Kissena Lake. This flow was almost stopped at Jamaica avenue, and had it not been for this channel, serious conditions would have prevailed. The canal also carries off the discharge from two sewers, which before discharged over a large area.

The owners of the property east of Jamaica avenue, extending to Kissena Park, have agreed to dig the necessary ditches in their property early in the spring, and efforts will be continued to get the Park Department to drain the Kissena Park property which they can do by connecting with these ditches. By these means, Kissena Park can be made an attractive and desirable resort.

College Point.—The meadow from Flushing Bay to the Whitestone Branch of the Long Island Railroad is all satisfactorily drained. One part, west of, and adjoining the College Point Causeway, has been filled, in an admirable manner, and will require no attention. West of the railroad and up to Fifth avenue, the property differs from all others. Many years ago a tide gate was put in to prevent the inflow of tide water. This gate, although repaired at the direction of the Department, does not fully perform its function, admitting more or less tide water, and a large amount of sewerage from College Point and Flushing. The inspectors succeeded in having a great deal of work done, and there was no mosquito breeding here during the past summer. It is, however, a very difficult region to deal with, and it will be kept

under constant observation. The owners, who have so far complied with the orders have been informed that some further drainage may be required in another and more unfavorable season. There is one small tract of about two acres, the ownership of which has only recently been ascertained, which is still undrained.

In this section north of Fifth avenue, only two properties have been drained. This is due to the fact that it was necessary to clean up the outlets below Fifth avenue, and also to get the Department of Highways to put in better drains at lower levels under that avenue. These drains have been provided for.

The City laborers have been practically confined in their work to the region about Flushing, in order to secure the maintenance of such conditions as would prove the efficacy and value of systematic mosquito extermination.

Acknowledgment is made to the Sewer Department in clearing up and deepening, at the request of the Department of Health, that section of Jackson Creek which lies between Flushing avenue and Jackson avenue, which has, for many years, been used by the City for sewer purposes.

Acres drained	200
Orders issued	15
Orders complied with.....	15

Maspeth.—This section running back from Newtown Creek to the Adler Monumental Works at Old Brook School road, was in bad condition. It has been successfully remedied by draining everything up to Adler's, and by requesting the Department of Highways to remove the obstruction in Old Brook School road and provide a large and roomy culvert. This furnished a complete outlet for the water which has for years stood in a badly congested pond at this point.

Acres drained	134
Acres undrained	None
Linear feet of drainage.....	28,706
Orders issued	10
Orders complied with	10

Jamaica Meadows.—Work was begun on the Jamaica Meadows at the westerly line of the Borough of Queens, and most of the meadows have been covered. About 685 acres have been drained, or are now under contract. About 300 acres are in process of filling. The adverse result of the jury trial at Elmhurst, in attempting the forcible execution of orders of the Department of Health regarding drainage has had a tendency to inhibit the accomplishment of such work. Efforts have continued, however, in spite of the difficulties, and about 985 acres have been drained. Another difficulty, which the Department encountered, was the unusually large number of tracts, the ownership of which, could not be ascertained. These tracts, aggregating 81 acres, were finally submitted to the Board of Health with the recommendation that they authorize the performance of this work. Contracts have been let and the work will be started when weather con-

General Sanitary Inspection.

ditions permit. The building of the Long Island Railroad from Aqueduct to the Bay cut off one hundred acres of natural drainage. The co-operation of the railroad company has finally been secured, and a pipe will be laid for a length of several hundred feet to conduct water to the culvert at the creek just north of Ramblersville, by which outlet to tide water can be secured. Following this, the meadow south of this point and east of the railroad will be promptly drained.

Acres drained or under process of drainage...	685
Acres in process of being filled.....	300
Linear feet of trench so far actually completed..	113,031
Orders issued	86
Orders complied with.....	42
Orders pending	44

In closing the report on the Borough of Queens, it may be mentioned that the successful results of drainage work, as regards mosquito extermination, have been favorably commented upon by several of the civic and business associations of this Borough.

BOROUGH OF THE BRONX.

Work commenced in this Borough, February 13, 1909.

First ditch dug March 17, 1909.

Claremont Heights (inland).—The mosquito breeding grounds in this district are inland, and differ essentially from those found in the Borough of Queens, which are exclusively salt water breeding grounds. Numerous streets being filled in and regraded has created new breeding places for mosquitoes. These foci have been removed by the Department's orders upon these properties, requiring them to be filled or drained.

Orders issued	13
Orders complied with.....	13
Orders pending .....	..

South of One Hundred and Sixty-seventh Street, between River and Jerome Avenue.—The northwest corner of One Hundred and Sixty-second street and River avenue was found to be the most prolific breeding place in this section. These foci were on both City and private properties, and were caused by the neglect of proper filling in of the streets. These were eliminated, as were also those in the Cromwell Creek section.

Orders issued	1
Orders complied with.....	1
Orders pending .....	..

Riverdale.—Owing to lack of proper sewer connections, and improper care in maintaining tanks and wells, covered or otherwise, mosquito breeding places during the past year were numerous and large in area. Unused tanks and wells were emptied of water and filled

in, while those found defective and in use were repaired and screened.

Orders issued	8
Orders complied with.....	4
Orders rescinded	1
Orders pending	3

Salt Meadows.—The Bronx Salt Meadows comprise parts of Kingsbridge, Hunts Point, Classon Point, Castle Hill, Unionport, Westchester, Throgg's Neck, Eastchester, Baychester and Locust Point.

Clason Point.—Fifty per cent. of the meadows between the Bronx River and Clason Point road have been drained and filled. Great difficulty in ascertaining the names of the owners, in locating small lots and in getting proper service on the heirs of different estates, has made the work of the Department in this locality particularly difficult. The removal of a dam, which occupies a portion of this property, would remedy the nuisance to a great extent. Larvae have been found plentifully this year on the Trask estate. The Watson estate in this section is being filled rapidly.

Between Pugsley Creek and Clason Point road there exists an area of land which has been partially drained.

Castle Hill.—All meadows were drained in this section.

Unionport and Westchester.—All meadows belonging to known owners are being drained or filled.

Throggs Neck.—The mosquito producing areas in this section have been drained with the exception of ten acres.

Fort Schuyler.—The meadows adjacent to the Government Reservation have been drained.

Eastchester.—Fifty-four per cent. of the meadows have been drained. Of the undrained meadows there are 60 acres, the ownership of which the Department has been unable to determine.

Baychester.—All meadows of known owners have been drained with the exception of Plot 5, Lot 10-A, now under contract. The culverts under the N. Y., N. H. & H. R. R. tracks were necessarily lowered 18 inches before work could be started over this area.

Locust Point.—One piece of meadow, about 50 acres, the ownership of which was not ascertainable, was drained by the Department of Health.

It is a noticeable fact that since the work of drainage of marsh lands in The Bronx, by the Department, has been instituted, there has not been a case in Court.

Salt Marsh.—Acreage privately drained, 1,439; acreage drained by Department of Health, 50; acreage undrained, 800, exclusive of Pelham Bay Park, consisting of 450 acres, as computed by Department of Parks. Number of linear feet of trenches, 490,996; trenches average two feet deep and ten inches wide.

Orders issued	323
Orders complied with.....	257
Orders rescinded	13
Orders pending	53

General Sanitary Inspection.

Special.—It may be remarked that active larvae were found under thin ice on Castle Hill meadows on October 20, which definitely proves that larvae of the *Culex Sollicitans* do not become completely extinct with the first appearance of ice.

Some difficulty has been encountered in keeping the trenches from being clogged with sods and debris constantly thrown up by the tide.

During the summer season of the past year, numerous complaints were received regarding the prevalence of mosquitoes in the upper and middle sections of the Borough of Manhattan. As there exist no mosquito breeding areas in these neighborhoods, attention was called to water tanks on the roofs, and approximately 10,000 inspections, with this object in view, were made. In slightly more than two per cent. of the houses inspected, the tanks were found to be unprotected, and in a considerable number of them, the larvae were found in active condition. Suitable notices were issued requiring that tanks be cleaned and provided with proper tight fitting covers or screens. When these notices were complied with, there was a marked diminution in the number of mosquitoes.

By far the most notable results of the work of the Department of Health regarding drainage of land and filling, for mosquito extermination have been obtained in The Bronx. Accomplishment of this work has been made possible because the property is owned by a few large estates; and active building operations under way in this vicinity have furnished quantities of rock and earth, which could be used for filling purposes. A few weeks of continuous work in the coming year will complete these improvements.

PUBLIC WATER SUPPLIES.

In addition to the usual samples of the City Water Supplies, which have been taken frequently in former years for chemical analysis, it has been the custom, during the past year, for bacteriological analyses and accumulations to be made at regular intervals. Where these combined reports have given reason to suspect that the water was contaminated, inspections have been made to discover and remove the source of the pollution.

The water supplies of Greater New York being of varied characters, they have to be classified according to their distinct and respective sources.

A searching investigation is being made of the Croton Watershed, and a complete classification as to the characters, chemical and bacteriological, of the subterranean waters of the Boroughs of Brooklyn and Queens.

SMOKE.

The smoke nuisance has called for but little action during the year 1909. The rigid enforcement of the provisions of the Sanitary Code in regard to smoke has placed the power plants of the City in such a condition that little, if any, action has been required on the part of this Department. During the year 204 notices against smoke nuisance were issued, most of which were abated upon receipt of the notice. There were made in addition, in order to enforce the notices, three arrests.

General Sanitary Inspection.

Early in the year the method of inspection of smoke complaints, and of reinspection of notices issued in consequence thereof, was improved. The system, at present, is to require the inspector to watch the premises under observation, for three periods of at least thirty minutes each, on three consecutive days, the hour of observation being different on each day. No complaint can be returned as "no cause for complaint" or no notice returned as "complied with" unless these nine inspections show that no dense smoke is discharged. In cases where it is reported that dense smoke is discharged, a report is submitted on the comparative chart, illustrated in this report. The use of this chart has been of great assistance in the proper preparation of "smoke cases" for presentation to the Criminal Courts, as it shows graphically, the conditions existing at the plants in question.

BARBER SHOPS.

The manner of enforcing the regulations of the Board of Health, in relation to barber shops, is the same as in former years. Inspections were made of all barber shops, and, in those instances where it was found that the shops were being operated in violation of the rules of the Board of Health, the necessary notices were issued. If, after the lapse of a reasonable length of time, the notices were found to be "not complied with," it was recommended to the Board of Health that the business or pursuit be declared a public nuisance. The enforcement of these public nuisance notices resulted, in every instance, either in the closing of the shop, or in placing it in a condition to comply with the Sanitary Law.

Rules and Regulations Governing Barber Shops.

1. No person with any disease of the skin of the face shall be shaved in a public barber shop.
2. Barbers must wash their hands thoroughly with soap and hot water before attending any person.
3. No alum or other astringent shall be used in stick form. If used at all to stop flow of blood, it must be applied in the form of powder.
4. The use of powder puffs is prohibited.
5. No towel shall be used for more than one person without being laundered.
6. The use of sponges is prohibited.
7. Mugs and shaving brushes must be thoroughly washed after use on each person.
8. Combs, razors, clippers and scissors shall be thoroughly cleansed after every separate use thereof.
9. Floors must be swept or mopped every day and all furniture and woodwork kept free from dust.
10. Hot and cold running water must be provided.
11. A copy of these regulations is to be hung in a conspicuous place in each shop.

General Sanitary Inspection.

LODGING HOUSES.

There are at the present time in existence in The City of New York 146 lodging houses, with 24,004 accommodations distributed as follows:

	Houses.	Accommodations.
Manhattan.....	117	19,988
Bronx.....	1	162
Brooklyn.....	28	3,884
Queens.....	....	....
Total.....	146	24,004

Lodging houses, from the nature of their occupancy, are fruitful sources of complaint. The Charter of The City of New York requires that all lodging houses shall be inspected by the Department of Health at least once in six months. It has been found that the semi-annual inspection has not been sufficient to maintain these lodging houses in a proper condition, and consequently special inspectors have been detailed in the Boroughs of Manhattan and Brooklyn.

The number of lodging houses in the City has slightly increased during the past year, but as these houses are in new buildings, especially constructed, or so altered for that purpose, the addition in numbers has not materially increased the problem of supervision.

TENT LIFE.

The same problem confronted the Department in regard to the so-called camp cities as in former years. The question, however, was attacked very early in the season, and no permits for the maintenance of camps were issued until after the sites had been placed in proper condition. The nuisance which existed in former years, caused by the disposition of waste material upon the ground about the camp, was this year done away with. No permits were issued for camps until they were supplied with an adequate amount of potable water, properly distributed throughout the camp. The open privy vaults in inaccessible places, which had existed in former years, were done away with, and it was required that all camps be provided with privy accommodations so situated that every tent should be within 150 feet of the same. Where possible, these accommodations are required to consist of sewers properly connected. In those locations where it was impossible to meet with this requirement, earth closets were installed consisting of small removable galvanized iron pails or cans, and it was stipulated in the application for a permit that these receptacles were to be removed, emptied and cleaned at least once in twenty-four hours. It was also required that adequate and readily accessible receptacles for garbage and household waste be placed throughout the camp. As a supplement to these precautions taken

General Sanitary Inspection.

prior to the granting of a permit, constant inspections were made of all camps located within the City. In some instances daily inspections were the rule, so that they were conducted with as little nuisance as is consistent with their peculiar form of occupancy.

BATHING ESTABLISHMENTS.

Bathing establishments may be roughly divided into two classes—tide water baths, which are used only during a few months of the year, and so called public baths scattered throughout the City. During the summer months in the Boroughs of Brooklyn and Queens, inspectors who had supervision of camp cities were also required to make frequent inspections at the various bathing establishments operated in connection with these camp cities, or on the beaches immediately adjacent to them. The provisions of the Sanitary Code, in relation to life saving appliances were strictly adhered to and vigorously enforced. In all cases before permits were granted to maintain bathing establishments, it was required that proper means of sterilizing the bathing suits and towels be installed. In some instances the proprietors closed their establishments rather than make the required expenditure at this time, expecting to make the necessary improvements and reopen in the early summer of 1910.

Routine inspections of the public baths and bathing establishments within the City have been conducted as in former years. There has been no appreciable change in their number. The location of some of these baths has been brought to the attention of the Department of Health during the past year, and some of them required to be closed on account of proximity to sewer discharges. Provision will be made for the year 1910 regarding the locations of baths within The City of New York.

OYSTERS.

The sale of oysters is regulated by Section 185 of the Sanitary Code:

"Sec. 185. No oysters shall be held, kept or offered for sale anywhere in the city of New York, without a permit in writing from the board of health, and subject to the rules and regulations of said board."

LIQUOR TRAFFIC.

As in former years the State Superintendent of Elections, in accordance with Section 483, Chapter 17, Consolidated Laws of 1909, demanded of the Department of Health that inspections be made of all premises within the City in which the business of trafficking in liquors is conducted. These inspections were made and the results forwarded to the Bureau of Elections. At that time it was suggested that recommendations be forwarded to the Legislature, proposing the modification of this law to the extent that this Department be required to

General Sanitary Inspection.

inspect only those premises which were expressly designated by the State Superintendent of Elections.

GASOLINE.

In October, 1909, there were a series of explosions in sewers on the West Side of the Borough of Manhattan, due to the presence of gasoline vapors. These vapors mixed with the sewer air in the proper proportion produce an explosive mixture, and upon the introduction of a spark of flame ignition follows. Fortunately the consequences of these explosions were not as serious as in previous years. Inspections have been made of all garages within the Borough of Manhattan, and, where necessary, orders have been issued requiring such changes as will prevent the discharge of gasoline into the sewers.

HEALTH SQUAD.

The Health Squad has performed valuable services in connection with the inspecting force of this Division. Their duties comprise, primarily, the making of inspections upon complaints, which can be readily removed, such as complaints against filthy yards and areas, the obstruction of air shafts, with clothes lines, beating of rugs and carpets and nuisances arising from dust, nuisances from noise especially at night, defective and unclean garbage and ash cans, complaints against the spitting ordinance, supervising the handling and removal of manure and other waste, and the enforcement of quarantine upon the request of the Chief of the Division of Contagious Diseases; the killing of glandered horses is also one of the duties of the Health Squad and is performed upon request, and finally the enforcement of those orders of the Board of Health that relates to stray dogs comes under their jurisdiction.

In the enforcement of the resolution of the Board of Health regarding the restriction of dogs in the City, there were killed during 1909, 783 dogs, and in the latter part of the period during which the resolution was enforced, there were practically no dogs at large, indicating that the action of the Board of Health regarding this condition, and the work of the Department in enforcing the resolution resulted in a great benefit to the community.

The Sanitary Police have also been very active in the enforcement of the section of the code prohibiting expectoration on ferry boats, railway stations and cars, and of the more recently enacted section of the code prohibiting smoking, or the carrying of lighted cigars or cigarettes on underground cars or railroads. In the enforcement of the first mentioned section there were 27 arrests made, of which ten were convicted and corresponding fines imposed. There is every evidence to show that the nuisance arising from the two indicated causes has been very materially reduced.

Division of General Sanitary Inspection—Sanitary Inspection—Number and Nature of Items Investigated on Citizens' and Inspectors' Complaints and Action Taken.
CITY OF NEW YORK.

Nature of Complaints.		* Number of Items Investigated.	Valid and Returned for Orders or Notices.	Duplicates.	† No Cause for Action.	Referred to Other Departments.	Inspectors.	Sanitary Police.
Alleys	in { cleaning draining or paving	31,757	9,374	591	19,494	2,298	23,839	7,918
Areas	need of							
Shafts	need of							
Yards	need of							
Animals kept without permit.		11,350	4,756	260	5,754	580	8,295	3,055
Apartment buildings need cleaning or ventilating.		24,553	6,015	394	10,373	1,891	19,387	5,196
Barber shops do not comply with rules and regulations.		1,569	1,401	14	146	8	1,512	27
Ceilings or walls need cleaning, whitewashing, or repainting.		31,486	8,767	477	20,173	2,068	24,457	7,029
Cellars need cleaning, cementing or draining.		19,472	4,893	314	12,390	1,866	16,295	3,477
Cellars inhabited contrary to law, or apartments overcrowded.		4,480	611	63	3,311	105	4,305	115
Cesspools need cleaning or repairing.		3,517	1,801	130	1,280	216	3,473	44
Chimneys need cleaning or repairing.		5,554	879	61	3,914	780	5,357	179
Defective drainage.		11,799	3,097	322	6,080	1,180	11,570	229
Excavations or vacant lots need cleaning, draining, repairing or fencing.		4,218	2,695	268	1,638	217	2,473	1,755
Floors need cleaning or repainting.		33,404	10,885	485	20,013	2,021	25,713	7,661
Gas mains or pipes need repairing.		5,918	611	64	4,566	677	5,782	136
Garbage or ash receptacles need to be provided, removed or cleaned.		15,714	4,099	210	10,697	1,308	11,471	4,243
Halls or stairways need cleaning or repainting.		29,156	4,258	320	13,796	1,782	14,975	5,181
Ice boxes need cleaning or draining.		5,218	2,498	34	2,585	101	4,134	1,084
Lighting needed in dark halls or rooms.		5,042	480	52	3,525	985	4,163	379
Manure dumps.		855	495	18	261	81	815	40
Offensive trades.		5,062	1,830	93	3,024	115	3,368	2,594
Plumbing needs cleaning, repairing, trapping or removal of obstructions.		24,935	8,408	438	14,972	2,017	23,396	1,539
Privies need cleaning, disinfecting or repairing.		3,310	2,233	95	825	163	3,257	50
Public conveyances.		168	22	...	85	1	30	60
Roofs or roof drains need cleaning or repairing.		16,793	4,657	300	10,279	1,500	14,085	1,868
Smoke nuisance.		1,778	771	77	855	75	1,683	93
Stables should be cleaned, repaired, drained or removed.		2,948	1,713	80	1,052	97	2,688	266
Water closets need cleaning, repairing, or to be provided.		18,811	6,461	278	10,212	1,860	17,591	1,220
Water tanks or cisterns need cleaning or repainting.		4,333	1,518	79	2,299	437	3,608	665
Total.		315,076	95,319	5,593	189,545	24,709	250,321	55,755

* By both citizens and inspectors.

† Either no cause for complaint or cause of complaint removed without issuance of notice.

General Sanitary Inspection.

Nature of Complaints.		* Number of Items Investigated.	Valid and Returned for Orders or Notices.	Duplicates.	† No Cause for Action.	Referred to Other Departments.	Inspectors.	Sanitary Police.
Alleys in { cleaning Areas need } Shafts need } Yards of } or } paying }		12,505	3,182	222	8,427	374	7,677	4,828
Animals kept without permit.....		1,798	574	43	1,174	7	385	1,413
Apartment need cleaning or ventilating.....		8,003	1,725	107	6,012	159	4,977	3,028
Barber shops do not comply with rules and regulations.....		890	532	11	46	1	877	13
Ceilings or walls need cleaning, whitewashing or repainting.....		14,263	4,668	180	9,093	313	9,711	4,549
Cellars need cleaning, cementing or draining.....		6,433	1,720	118	4,350	245	4,975	1,463
Cellars inhabited contrary to law, or apartments overcrowded.....		1,089	120	22	914	33	1,027	62
Cesspools need cleaning or repainting.....		41	12	2	25	2	39	2
Chimneys need cleaning or repainting.....		1,374	234	21	1,071	48	1,300	74
Defective drainage.....		3,011	711	80	2,105	116	2,971	40
Excavations or vacant lots need cleaning, draining, repainting or fencing.....		891	404	30	376	21	314	577
Floors need cleaning or repainting.....		15,718	6,468	212	8,824	274	10,573	5,145
Gas mains or pipes need repainting.....		2,044	140	24	1,861	19	2,000	44
Garbage or ash receptacles need to be provided, removed or cleaned.....		5,278	1,520	60	3,617	81	2,766	2,512
Halls or stairways need cleaning or repainting.....		7,821	1,837	138	5,643	203	4,510	3,311
Ice boxes need cleaning or draining.....		2,831	1,466	13	1,313	9	2,279	552
Lighting needed in dark halls or rooms.....		843	108	15	607	23	732	111
Manure dumps.....		6	4	...	2	...	3	3
Offensive trades.....		4,111	1,320	78	2,611	69	2,481	1,627
Plumbing needs cleaning, repainting, trapping or removal of obstructions.....		9,524	2,904	197	6,121	302	9,327	287
Privies need cleaning, disinfecting or repainting.....		25	9	...	13	3	23	2
Public Conveyances.....		23	4	...	19	...	9	14
Roofs or roof drains need cleaning or repainting.....		5,303	1,032	111	3,397	163	4,098	1,205
Smoke nuisance.....		1,239	546	60	601	32	1,105	44
Stables should be cleaned, repaired, drained or removed.....		744	443	30	252	19	669	75
Water closets need cleaning, repainting, or to be provided.....		7,131	3,286	134	3,424	287	6,754	377
Water tanks or cisterns need cleaning or repainting.....		1,847	939	48	797	63	1,408	439
Total.....		114,786	37,137	1,965	72,818	2,866	82,989	31,797

* By both citizens and inspectors.

† Either no cause for complaint or cause of complaint removed without issuance of notice.

General Sanitary Inspection.

BOROUGH OF BROOKLYN.

Nature of Complaints.		* Number of Items Investigated.	Valid and Re- turned for Or- ders or Notices.	Duplicates.	† No Cause for Action.	Referred to Other Departments.	Inspectors.	Sanitary Police.
Alleys in { cleaning Areas need { draining Shafts of { or Yards paving }	.....	7,869	1,271	26	5,367	1,205	7,075	824
Animals kept without permit.....		3,367	1,096	9	1,785	477	3,205	162
Apartment need cleaning or ventilating.....		7,211	991	27	5,058	1,135	6,898	313
Barber shops do not comply with rules and regulations.....		587	492	2	87	6	576	11
Ceilings or walls need cleaning, whitewashing or repairing.....		7,657	585	22	5,841	1,206	7,111	546
Ceilings need cleaning, cementing or draining.....		5,137	328	8	3,515	1,086	4,998	139
Cellars inhabited contrary to law.....		1,798	32	1	1,379	385	1,786	12
Cesspools need cleaning or repairing.....		458	131	2	1,286	39	449	9
Chimneys need cleaning or repairing.....		2,200	62	2	1,645	491	2,163	37
Defective drainage.....		2,763	421	10	1,793	539	2,751	12
Excavations or vacant lots need cleaning, draining or repairing.....		8,032	285	6	635	63	678	311
Floors need cleaning or repairing.....		989	955	21	5,875	1,181	7,446	586
Gas mains or pipes need repairing.....		2,260	29	4	1,710	517	2,219	41
Garbage or ash receptacles need to be provided, removed or cleaned.....		4,868	920	8	2,951	929	4,648	100
Halls or stairways need cleaning or repairing.....		5,399	477	9	4,031	1,092	4,970	339
Ice-boxes need cleaning or draining.....		1,354	663	6	712	33	1,254	100
Lighting needed, in dark halls or rooms.....		3,103	18	6	2,207	872	3,041	62
Manure dumps.....		378	186	....	127	65	368	10
Offensive trades.....		1,335	300	6	994	35	511	824
Plumbing needs cleaning, repairing, trapping or removal of obstructions.....		7,254	2,267	17	3,863	1,107	7,266	48
Privies need cleaning, disinfecting or repairing.....		306	100	3	100	43	358	8
Public Conveyances.....		53	7	....	46	....	7	46
Roots or roof drains need cleaning or repairing.....		4,973	714	12	3,188	1,059	4,946	27
Smoke nuisance.....		209	114	3	144	29	274	16
Stables should be cleaned, repaired, drained or removed.....		968	309	6	410	63	846	62
Water closet apartments need cleaning or repairing.....		5,754	1,182	12	3,130	1,130	5,724	30
Water tanks or cisterns need cleaning or repairing.....		1,221	97	3	835	286	1,203	18
Total.....		87,464	13,962	235	58,134	15,133	82,711	4,753

* By both citizens and inspectors.

† Either no cause for complaint or cause of complaint removed without issuance of notice.

General Sanitary Inspection.

BOROUGH OF THE BRONX.

Nature of Complaints.		* Number of Items Investigated.	Valid and Returned for Orders or Notices.	Duplicates.	† No Cause for Action.	Referred to Other Departments.	Inspectors.	Sanitary Police.
Alleys } in { cleaning Areas } need { draining Shafts } or { paving Yards } of {	.....	5,406	1,333	134	3,545	394	3,187	2,219
Animals kept without permit.....	.....	1,990	848	69	1,655	18	806	1,184
Apartment need cleaning or ventilating.....	.....	4,372	827	103	3,163	279	2,533	1,839
Barber shops do not comply with rules and regulations.....	.....	39	30	1	7	1	36	3
Ceilings or walls need cleaning, whitewashing or repairing.....	.....	4,075	1,067	102	3,183	323	2,753	1,922
Cellars need cleaning, cementing or draining.....	.....	3,979	787	79	2,781	312	2,418	1,561
Cellars inhabited contrary to law or apartments overcrowded.....	.....	108	20	4	65	10	73	35
Cesspools need cleaning or repairing.....	.....	457	178	24	234	21	440	17
Chimneys need cleaning or repairing.....	.....	824	157	16	549	102	766	58
Chimneys need cleaning or repairing.....	.....	2,280	656	70	1,327	233	2,217	63
Defective drainage.....	.....	1,471	890	182	357	42	643	838
Excavations or vacant lots need cleaning, draining, repairing or fencing.....	.....	4,654	1,043	100	3,174	337	2,738	1,915
Floors need cleaning or repairing.....	.....	695	62	8	506	120	648	46
Gas mains or pipes need repairing.....	.....	2,500	519	47	1,740	134	947	1,558
Garbage or ash receptacles need to be provided, removed or cleaned.....	.....	3,258	634	66	2,267	291	1,740	1,518
Halls or stairways need cleaning or repairing.....	.....	644	176	11	403	54	213	431
Ice boxes need cleaning or draining.....	.....	313	22	9	249	33	110	263
Lighting needed in dark halls or rooms.....	.....	162	74	8	70	10	138	24
Manure dumps.....	.....	204	43	4	153	4	68	136
Offensive trades.....	.....	3,861	910	82	2,546	314	2,671	1,100
Plumbing needs cleaning, repairing, trapping or removal of obstructions.....	.....	376	108	19	149	10	337	39
Privies need cleaning, disinfecting or repairing.....	.....	18	8	...	9	1	12	6
Public Conveniences.....	.....	2,668	447	51	1,965	205	2,171	497
Roofs or roof drains need cleaning or repairing.....	.....	112	12	1	210	9	81	31
Smoke nuisance.....	.....	515	272	18	210	6	394	121
Stables should be cleaned, repaired, drained or removed.....	.....	2,990	603	49	2,078	260	2,180	801
Water closet apartments need cleaning, repairing or to be provided.....	.....	289	46	2	268	33	108	181
Water tanks or cisterns need cleaning or repairing.....	.....	48,861	11,993	1,270	32,943	3,645	39,438	18,423
Total.....	.....	48,861	11,993	1,270	32,943	3,645	39,438	18,423

* By both citizens and Inspectors.

† Either no cause for complaint or cause of complaint removed without issuance of notice.

General Sanitary Inspection.

BOROUGH OF QUEENS.

Nature of Complaints.		* Number of Items Investigated.	Valid and Returned or Notices.	Duplicates.	† No Cause for Action.	Referred to Other Departments.	Inspectors.	Sanitary Police.
Alleys { in cleaning Areas { need draining Shafts { or paving Yards {	.....	4,049	2,673	144	933	299	4,046	3
Animals kept without permit.....		2,803	2,070	111	643	69	2,779	114
Apartment need cleaning or ventilating.....		3,385	2,320	109	744	212	3,383	2
Barber shops do not comply with rules and regulations.....		52	47	.....	5	.....	52	.....
Ceilings or walls need cleaning, whitewashing or repairing.....		3,327	2,301	113	703	210	3,327	.....
Cellars need cleaning, cementing or draining.....		2,709	1,781	79	653	196	2,709	.....
Cellars inhabited contrary to law, or apartments overcrowded.....		667	433	12	197	55	667	.....
Cesspools need cleaning or repairing.....		2,119	1,443	81	441	154	2,118	1
Chimneys need cleaning or repairing.....		678	420	19	180	59	678	.....
Defective drainage.....		1,938	1,163	75	451	249	1,938	.....
Excavations or vacant lots need cleaning, draining, repairing or fencing.....		630	369	40	140	81	628	2
Floors need cleaning or repairing.....		3,303	2,304	110	735	214	3,303	.....
Gas mains or pipes need repairing.....		579	371	21	166	21	579	.....
Garbage or ash receptacles need to be provided, removed or cleaned.....		1,683	1,058	54	474	97	1,682	1
Halls or stairways need cleaning or repairing.....		2,340	1,554	66	536	184	2,340	.....
Ice-boxes need cleaning or draining.....		334	221	4	104	5	334	.....
Lighting needed in dark halls or rooms.....		488	318	3	112	55	488	.....
Manure dumps.....		246	203	6	32	5	240	.....
Offensive trades.....		219	160	5	48	6	219	.....
Plumbing needs cleaning, repairing, trapping or removal of obstructions.....		2,968	1,976	88	687	217	2,968	.....
Privies need cleaning, disinfecting or repairing.....		1,514	1,185	42	194	93	1,514	.....
Public Conveyances.....		12	3	.....	9	.....	11	1
Roofs or roof drains need cleaning or repairing.....		2,591	1,753	91	616	131	2,591	.....
Smoke nuisance.....		86	56	2	23	5	86	.....
Stables should be cleaned, repaired, drained or removed.....		648	547	28	66	7	648	.....
Water closet apartments need cleaning, repairing or to be provided.....		1,886	1,173	49	409	165	1,886	.....
Water tanks or cisterns need cleaning or repairing.....		466	320	6	89	45	466	.....
Total.....		41,900	28,228	1,358	9,480	2,834	41,776	124

* By both citizens and inspectors.

† Either no cause for complaint or cause of complaint removed without issuance of notice.

General Sanitary Inspection.

BOROUGH OF RICHMOND.

Nature of Complaints.			Valid and Re- turned for Or- ders or Notices.	Duplicates.	† No Cause for Action.	Referred to Other Departments.	Inspectors.	Sanitary Police.
Alleys Areas Shafts Yards	in need of	{ cleaning draining or paving }						
Animals kept without permit.....			615	65	1,102	26	1,854	44
Apartment need cleaning or ventilating.....			168	28	1,097	9	1,120	182
Barber shops do not comply with rules and regulations.....			152	48	1,396	16	1,598	18
Ceilings or walls need cleaning, whitewashing or repairing.....			1	....	1	....
Ceilings need cleaning, cementing or draining.....			147	48	1,353	16	1,552	12
Cellars inhabited contrary to law or apartments overcrowded.....			77	30	1,100	7	1,200	14
Cesspools need cleaning or repairing.....			6	23	756	3	782	6
Chimneys need cleaning or repairing.....			127	21	204	....	427	15
Defective drainage.....			6	3	469	....	468	10
Excavations or vacant lots need cleaning, draining, repairing or fencing.....			753	67	944	43	1,603	114
Floors need cleaning or repairing.....			87	10	130	10	208	37
Gas mains or pipes need repairing.....			175	42	1,405	15	1,622	15
Garbage or ash receptacles need to be provided, removed or cleaned.....			9	7	323	....	336	3
Halls or stairways need cleaning or repairing.....			82	41	1,315	7	1,428	17
Ice-boxes need cleaning or draining.....			56	41	1,319	12	1,415	13
Lighting needed in dark halls or rooms.....			2	....	53	....	54	1
Offensive trades.....			14	19	260	2	292	3
Manure dumps.....			93	....	85	1	86	7
Plumbing needs cleaning, repairing, trapping or removal of obstructions.....			28	4	30	1	60	3
Privies need cleaning, disinfecting or repairing.....			402	54	855	17	1,314	14
Public conveyances.....			681	31	309	14	1,025	10
Roofs or roof drains need cleaning or repairing.....			2	....	....	2
Smoke nuisance.....			111	35	1,110	2	1,179	79
Stables should be cleaned, repaired, drained or removed.....			5	....	46	....	40	2
Water closet apartments need cleaning, repairing or to be provided.....			217	34	781	18	1,038	12
Water tanks or cisterns need cleaning or repairing.....			110	20	370	10	483	27
Total.....			4,089	675	17,070	23†	21,407	658

* By both citizens and inspectors.

† Either no cause for complaint or cause of complaint removed without issuance of notice.

General Sanitary Inspection.

Sanitary Inspection—Notices and Orders Disposed of During Year Ending December 31, 1909.

	Number of Notices and Orders Disposed of.	Disposed of Within 30 Days.		Disposed of Within 60 Days.		Not Disposed of Within 60 Days.	
		No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
New York.....	30,888	21,817	70.63	5,721	18.52	3,350	10.85
Manhattan.....	14,933	12,771	85.52	1,757	11.76	405	2.71
Brooklyn.....	7,718	4,518	58.54	1,809	23.40	1,391	18.06
The Bronx.....	3,463	1,906	55.04	1,006	29.05	551	15.91
Queens.....	3,324	2,121	63.80	594	17.87	609	18.33
Richmond.....	1,450	501	34.55	558	38.48	391	26.99

Sanitary Inspection—Notices and Orders Pending December 31, 1909, and when Issued.

	New York.		Manhattan.		Brooklyn.		The Bronx.		Queens.		Richmond	
	No.	Per Cent. of Total.	No.	Per Cent. of Total.	No.	Per Cent. of Total.	No.	Per Cent. of Total.	No.	Per Cent. of Total.	No.	Per Cent. of Total.
Notices and orders pending Dec. 31, 1909 ...	1,465	100.00	361	100.00	266	100.00	326	100.00	381	100.00	131	100.00
Number first is- sued in—												
December, 1909..	863	58.91	292	80.88	129	48.49	184	56.54	211	55.38	47	35.88
November, 1909 .	255	17.41	56	15.51	54	20.30	50	15.33	58	15.22	37	28.24
October, 1909 ...	81	5.53	9	2.49	19	7.14	15	4.60	26	6.82	12	9.16
September, 1909..	51	3.48	2	.55	8	3.01	7	2.14	12	3.15	22	16.79
August, 1909.....	29	1.98	1	.27	9	3.38	6	1.84	11	2.88	2	1.53
July, 1909.....	25	1.71	.....	.....	8	3.01	2	.61	10	2.62	5	3.82
June, 1909.....	29	1.98	.....	.....	10	3.76	7	2.14	8	2.10	4	3.05
May, 1909.....	13	.89	.....	.....	8	3.01	.....	.....	5	1.31	.....	.....
April, 1909.....	62	4.23	.....	.....	8	3.01	32	9.81	20	5.25	2	1.53
March, 1909.....	24	1.64	.....	.....	2	.75	18	5.52	4	1.05	.....	.....
February, 1909....	3	.20	.....	.....	.....	.....	.....	.....	3	.79	.....	.....
January, 1909....	12	.82	.....	.....	1	.37	.....	.....	11	2.88	.....	.....
Total, 1909...	1,447	98.77	360	99.72	256	96.24	321	98.47	379	99.47	131	100.00
Year 1908.....	14	.95	1	.27	8	3.01	3	.92	2	.52	.....	.....
Year 1907.....	3	.20	.....	.....	1	.37	2	.61	.....	.....	.....	.....
Year 1906.....	1	.07	.....	.....	1	.37	.....	.....	.....	.....	.....	.....
Year.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Sanitary Inspection—Lodging House Inspection.

	Permits.	Inspections.
New York.....	146	1,362
Manhattan.....	117	1,020
Brooklyn.....	28	332
The Bronx.....	1	10
Queens.....	.....	.....
Richmond.....	.....	.....

General Sanitary Inspection.

Sanitary Inspection—Shore Inspection.

	Brooklyn.		Richmond.	
	1909.	1908.	1909.	1908.
Inspections	3,402	3,553	3,142	3,282
Found and disposed of—				
Human bodies	15	7	.....	.....
Carcasses of animals .....	.....	.....	.....	.....
Dogs	219	265	938	1,166
Cats	161	139	569	700
Rats	265	219	7	.....
Goats .....	.....	12	107	174
Sheep	3	12	190	303
Hogs .....	.....	1	62	65
Calves .....	.....	6	.....	6
Horses .....	.....	2	3	27
Fowls	123	151	1,038	990
Fish	443	515	2,381	543
Pieces of offal	367	492	.....	.....
Pieces of meats	961	1,013	1,055	1,203
Pieces of bedding	161	142	501	528
Pieces of clothing	573	415	1,328	1,320
Number of mattresses	111	159	485	609

Sanitary Inspection—Complaints, Notices and Orders.

NEW YORK.	General Sanitary Inspection.	Milk.	Total.
Complaints—			
Complaints pending December 31, 1908	313	2	315
Citizens' complaints received	29,693	544	30,237
Citizens' complaints received from other divisions	3,566	23	3,589
Inspectors' complaints filed	17,206	663	17,869
Total	50,778	1,232	52,010
* No cause for action	15,631	413	16,044
Duplicates	1,439	3	1,442
Complaints referred to other divisions	27	1	28
Complaints found valid and referred to other departments	4,061	2	4,063
Complaints found valid and returned for notice or order	29,319	811	30,130
Complaints pending December 31, 1909	301	2	303
Notices—			
Notices and orders pending January 1, 1909	1,836	51	1,887
Notices and orders issued	30,093	816	30,909
Total	31,929	867	32,796
Notices and orders complied with before legal action	25,831	752	26,583
Notices and orders complied with after legal action	4,204	98	4,302
Notices and orders rescinded	444	2	446
Pending December 31, 1909	1,450	15	1,465
Total	31,929	867	32,796
Number of civil actions	667	3	670
Number of criminal actions	2,578	116	2,694

* Either no cause for complaint or cause for complaint removed without issuance of notice.

General Sanitary Inspection.

Sanitary Inspection—Complaints, Notices and Orders—Continued.

BOROUGH OF MANHATTAN.	General Sanitary Inspection.	Milk.	Total.
Complaints—			
Complaints pending December 31, 1908.....	104	2	106
Citizens' complaints received.....	12,841	385	13,226
Citizens' complaints received from other divisions.....	272	8	280
Inspectors' complaints filed.....	8,998	220	9,218
Total.....	22,215	615	22,830
* No cause for action.....	7,143	333	7,476
Duplicates.....	510	3	519
Complaints referred to other divisions.....	10	1	11
Complaints found valid and referred to other departments.....	867	....	867
Complaints found valid and returned for notice or order.....	13,642	277	13,919
Complaints pending December 31, 1909.....	37	1	38
Notices—			
Notices and orders pending January 1, 1909.....	502	29	531
Notices and orders issued.....	14,634	286	14,920
Total.....	15,136	315	15,451
Notices and orders complied with before legal action.....	14,542	301	14,843
Notices and orders complied with after legal action.....	90	....	90
Notices and orders rescinded.....	155	2	157
Pending December 31, 1909.....	349	12	361
Total.....	15,136	315	15,451
Number of civil actions.....	4	....	4
Number of criminal actions.....	91	....	91

* Either no cause for complaint, or cause for complaint removed without issuance of notice.

BOROUGH OF BROOKLYN	General Sanitary Inspection.	Milk.	Total.
Complaints—			
Complaints pending December 31, 1908.....	146	....	146
Citizens' complaints received.....	8,391	138	8,529
Citizens' complaints received from other divisions.....	689	....	689
Inspectors' complaints filed.....	3,560	395	3,955
Total.....	12,786	533	13,319
* No cause for action.....	3,353	53	3,406
Duplicates.....	213	....	213
Complaints referred to other divisions.....	4	....	4
Complaints found valid and referred to other departments.....	2,059	2	2,061
Complaints found valid and returned for notice or order.....	7,144	477	7,621
Complaints pending December 31, 1909.....	13	1	14
Notices—			
Notices and orders pending January 1, 1909.....	605	22	627
Notices and orders issued.....	7,007	477	7,484
Total.....	7,612	499	8,111
Notices and orders complied with before legal action.....	5,331	401	5,732
Notices and orders complied with after legal action.....	1,891	95	1,986
Notices and orders rescinded.....	127	....	127
Pending December 31, 1909.....	263	3	266
Total.....	7,612	499	8,111
Number of civil actions.....	....	....	....
Number of criminal actions.....	2,276	116	2,392

* Either no cause for complaint or cause for complaint removed without issuance of notice.

General Sanitary Inspection.

Sanitary Inspection—Complaints, Notices and Orders—Continued.

BOROUGH OF THE BRONX.	General Sanitary Inspection.	Milk.	Total.
Complaints—			
Complaints pending December 31, 1908.....	29	....	29
Citizens' complaints received.....	4,521	21	4,542
Citizens' complaints received from other divisions.....	1,623	2	1,625
Inspectors' complaints filed.....	1,707	29	1,736
Total.....	7,880	52	7,932
* No cause for action.....	3,044	27	3,071
Duplicates.....	383	....	383
Complaints referred to other divisions.....	13	....	13
Complaints found valid and referred to other departments.....	552	....	552
Complaints found valid and returned for notice or order.....	3,674	25	3,699
Complaints pending December 31, 1909.....	214	....	214
Notices—			
Notices and orders pending January 1, 1909.....	243	....	243
Notices and orders issued.....	3,593	21	3,614
Total.....	3,836	21	3,857
Notices and orders complied with before legal action.....	2,848	18	2,866
Notices and orders complied with after legal action.....	594	3	597
Notices and orders rescinded.....	68	....	68
Pending December 31, 1909.....	326	....	326
Total.....	3,836	21	3,857
Number of civil actions.....	599	3	602
Number of criminal actions.....	44	....	44

* Either no cause for complaint or cause for complaint removed without issuance of notice.

BOROUGH OF QUEENS	General Sanitary Inspection.	Milk.	Total.
Complaints—			
Complaints pending December 31, 1908.....	22	....	22
Citizens' complaints received.....	3,150	....	3,150
Citizens' complaints received from other divisions.....	504	13	517
Inspectors' complaints filed.....	1,749	19	1,768
Total.....	5,425	32	5,457
* No cause for action.....	1,281	....	1,281
Duplicates.....	238	....	238
Complaint referred to other divisions.....	....	....	....
Complaints found valid and referred to other departments.....	503	....	503
Complaints found valid and returned for notice or order.....	3,375	32	3,407
Complaints pending December 31, 1909.....	28	....	28
Notices—			
Notices and orders pending January 1, 1909.....	385	....	385
Notices and orders issued.....	3,375	32	3,407
Total.....	3,760	32	3,792
Notices and orders complied with before legal action.....	2,282	32	2,314
Notices and orders complied with after legal action.....	1,010	....	1,010
Notices and orders rescinded.....	87	....	87
Pending December 31, 1909.....	381	....	381
Total.....	3,760	32	3,792
Number of civil actions.....	....	....	....
Number of criminal actions.....	148	....	148

* Either no cause for complaint or cause for complaint removed without issuance of notice.

General Sanitary Inspection.

Sanitary Inspection—Complaints, Notices and Orders—Continued.

BOROUGH OF RICHMOND.	General Sanitary Inspection.	Milk.	Total.
Complaints—			
Complaints pending December 31, 1908.....	12	....	12
Citizens' complaints received.....	790	....	790
Citizens' complaints received from other divisions.....	478	....	478
Inspectors' complaints filed.....	1,192	....	1,192
Total.....	2,472	....	2,472
* No cause for action	810	....	810
Duplicates.....	89	....	89
Complaint referred to other divisions.....	....	....	....
Complaints found valid and referred to other departments.....	80	....	80
Complaints found valid and returned for notice or order.....	1,484	....	1,484
Complaints pending December 31, 1909.....	9	....	9
Notices—			
Notices and orders pending January 1, 1909.....	101	....	101
Notices and orders issued.....	1,484	....	1,484
Total.....	1,585	....	1,585
Notices and orders complied with before legal action	828	....	828
Notices and orders complied with after legal action.....	619	....	619
Notices and orders rescinded.....	7	....	7
Pending December 31, 1909.....	131	....	131
Total.....	1,585	....	1,585
Number of civil action.....	64	....	64
Number of criminal actions	19	....	19

* Either no cause for complaint or cause for complaint removed without issuance of notice.

Dead Animals, Offal and Night Soil Ordered Removed.

	New York.	Man- hattan.	Brook- lyn.	The Bronx.	Queens.	Rich- mond.
Carcasses Removed—						
Large Animals:						
Horses.....	17,809	8,726	5,547	1,547	1,426	563
Mules.....	17	14	....	1	....	2
Donkeys.....	12	11	....	....	....	1
Colts.....	34	25	6	2	....	1
Ponies.....	15	12	....	3	....	....
Cattle.....	265	133	21	22	62	27
Other large animals.....	4	2	....	....	2	....
Total large animals.....	18,156	8,923	5,574	1,575	1,490	594
Small Animals—						
Calves.....	715	711	1	....	2	1
Sheep.....	255	253	....	....	1	1
Goats.....	112	29	55	1	21	6
Hogs.....	36	36	....	....	....	....
Pigs.....	1	....	1	....	....	....
Cats and dogs from streets.....	116,545	80,202	16,924	11,997	1,836	5,586
Cats and dogs from public pound.....	216,993	154,234	61,226	....	....	1,533
Other small animals.....	....	....	....	....	....	....
Total small animals.....	334,657	235,465	78,207	11,998	1,860	7,127
Total all animals.....	352,813	244,388	83,781	13,573	3,350	7,721
Quantity of Meat, Offal, etc., Removed—						
Pounds of meat.....	96,250	86,250	10,000	....	....	....
Pounds of poultry.....	86,920	86,920	....	....	....	....
Quantity of Meat, Offal, etc., Ordered Re- moved—						
Pounds of fish.....	3,258,314	2,650,490	607,824	....	....	....
Pounds of offal.....	4,676,030	3,456,275	1,219,755	....	....	....
Total pounds.....	8,117,514	6,279,935	1,837,579	....	....	....
Quantity of Night Soil Removed—						
Cubic yards of night soil removed....	3,262	32	952	....	2,278	....

General Sanitary Inspection.

Sanitary Inspection—Criminal Actions.

CITY OF NEW YORK.		Violations of Ordinances and Regulations.	Street Drainage or Obstruction.	Keeping and Use of Animals.	Offensive Trades.	Offensive Materials.	Removal of Filth.	Noise.	Smoke.	Spitting.	Violations of Rules, etc., Con- tagious Diseases.	Total.
Cases pending December 31, 1908.....		36	1	3	4	5	....	....	5	....	1	55
New arrests.....		2,245	....	47	16	51	1	6	3	2,513	4	4,886
Total.....		2,281	1	50	20	56	1	6	8	2,513	5	4,941
Discharged.....		204	1	19	11	42	....	6	7	414	3	797
Fined.....		1,883	....	16	7	....	....	....	....	1,789	1	3,696
Sentence suspended.....		78	....	12	2	9	1	....	....	310	1	413
Cases dropped.....		5	....	....	....	....	....	....	....	....	....	5
Imprisoned.....		....	....	....	....	....	....	....	....	....	....	....
Cases pending December 31, 1909.....		21	....	3	....	5	....	....	1	....	....	30
Total.....		2,281	1	50	20	56	1	6	8	2,513	5	4,941
Amount of fines imposed.....		\$2,668 00	....	\$81 00	\$11 00	....	....	....	....	\$1,936 80	\$25 00	\$4,751 80

General Sanitary Inspection.

Sanitary Inspection—Criminal Actions—Continued.

BOROUGH OF MANHATTAN.											
	Violations of Ordinances and Regulations.	Street Drainage or Obstruction.	Keeping and Use of Animals.	Offensive Trades.	Offensive Materials.	Removal of Filth.	Noise.	Smoke.	Spitting.	Violations of Rules, etc., Contagious Diseases.	Total.
Cases pending, December 31, 1908.	10	....	1	....	....	....	....	1	....	....	12
New arrests.	1,082	....	10	10	....	....	5	2	1,722	1	3,732
Total.	1,092	....	11	10	....	....	5	3	1,722	1	3,744
Discharged.	157	....	....	3	....	....	5	3	355	....	523
Fined.	1,827	....	9	7	....	....	....	....	1,307	1	3,211
Sentence suspended.	2	....	1	....	....	....	....	....	....	....	3
Cases dropped.	....	....	....	....	....	....	....	....	....	....	....
Imprisoned.	....	....	....	....	....	....	....	....	....	....	....
Cases pending, December 31, 1909.	6	....	1	....	....	....	....	....	....	....	7
Total.	1,992	....	11	10	....	....	5	3	1,722	1	3,744
Amount of fines imposed.	\$25 71	....	\$31 00	\$11 00	....	....	....	....	\$1,455 55	\$25 00	\$4,003 55

Sanitary Inspection—Criminal Actions—Continued.

Borough of Brooklyn.	Violations of Ordinances and Regulations.	Street Drainage or Obstruction.	Keeping and Use of Animals.	Offensive Trades.	Offensive Materials.	Removal of Filth.	Noise.	Smoke.	Spitting.	Violations of Rules, etc., Contagious Diseases.	Total.
Cases pending December 31, 1908.....	17	1	2	4	5	....	....	4	....	1	34
New arrests.....	213	....	31	6	51	1	....	1	621	2	926
Total.....	230	1	33	10	56	1	....	5	621	3	960
Discharged.....	102	1	18	8	42	....	....	4	5	2	182
Fined.....	48	....	3	....	....	....	....	....	308	....	359
Sentence suspended.....	68	....	10	2	9	1	....	....	308	1	399
Cases dropped.....	....	....	....	....	....	....	....	....	....	....	....
Imprisoned.....	....	....	....	....	....	....	....	....	....	....	....
Cases pending December 31, 1909.....	12	....	2	....	5	....	....	1	....	20	....
Total.....	230	1	33	10	56	1	....	5	621	3	960
Amount of fines imposed.....	\$86 00	....	\$20 00	....	....	....	....	....	\$365 50	....	\$471 50

General Sanitary Inspection.

Sanitary Inspection—Criminal Actions—Continued.

BOROUGH OF THE BRONX.											
	Violations of Ordinances and Regulations.	Street Drainage or Obstruction.	Keeping and Use of Animals.	Offensive Trades.	Offensive Materials.	Removal of Filth.	Noise.	Smoke.	Spitting.	Violations of Rules, etc., Contagious Diseases.	Total.
Cases pending December 31, 1908.	3	...	...	...	...	...	...	...	...	...	3
New arrests.	6	...	6	...	...	...	1	...	161	...	174
Total.	9	...	6	...	...	...	1	...	161	...	177
Discharged.	1	...	1	...	...	...	1	...	54	...	57
Fined.	3	...	4	...	...	...	...	...	107	...	114
Sentence suspended.	2	...	1	...	...	...	...	...	...	...	3
Cases dropped.	2	...	...	...	...	...	...	...	...	...	2
Imprisoned.	...	...	...	...	...	...	...	...	...	...	...
Cases pending Dec. 31, 1909.	1	...	...	...	...	...	...	...	...	...	1
Total.	9	...	6	...	...	...	1	...	161	...	177
Amount of fines imposed.	\$5 00	...	\$30 00	...	...	...	...	...	\$108 75	...	\$143 75

Sanitary Inspection—Criminal Actions—Continued.

BOROUGH OF QUEENS.		Violations of Ordinances and Regulations.	Street Drainage or Obstruction.	Keeping and Use of Animals.	Offensive Trades.	Offensive Materials.	Removal of Filth.	Noise.	Smoke.	Spitting.	Violations of Rules, etc., Con- tagious Diseases.	Total.
Cases pending December 31, 1908		2	....	....	....	....	....	....	....	....	....	2
New arrests		26	....	....	....	....	....	....	....	9	....	35
Total		28	....	....	....	....	....	....	....	9	....	37
Discharged		12	....	..	....	....	....	....	....	....	....	12
Fined		5	....	....	....	....	....	....	....	7	....	12
Sentence suspended		6	....	....	....	....	....	....	....	2	....	8
Cases dropped		3	....	....	....	....	....	....	....	....	....	3
Imprisoned .....		....	....	....	....	....	....	....	....	....	....	....
Cases pending December 31, 1909		2	....	....	....	....	....	....	....	....	....	2
Total		28	....	....	....	....	....	....	....	9	....	37
Amount of fines imposed		\$36 00	....	....	....	....	....	....	....	\$7 00	....	\$43 00

General Sanitary Inspection.

Sanitary Inspection—Criminal Actions—Continued.

BOROUGH OF RICHMOND.	Violations of Ordinances and Regulations.	Street Drainage or Obstruction.	Keeping and Use of Animals.	Offensive Trades.	Offensive Materials.	Removal of Filth.	Noise.	Smoke.	Spitting.	Violations of Rules, etc., Con- tagious Diseases.	Total.
Cases pending December 31, 1908.....	4	...	...	...	...	...	...	...	...	1	4
New arrests.....	1	...	...	...	...	...	...	...	...	...	19
Total.....	22	...	...	...	...	...	...	...	...	1	23
Discharged.....	22	...	...	...	...	...	...	...	...	1	23
Fined.....	...	...	...	...	...	...	...	...	...	...	...
Sentence suspended.....	...	...	...	...	...	...	...	...	...	...	...
Cases dropped.....	...	...	...	...	...	...	...	...	...	...	...
Imprisoned.....	...	...	...	...	...	...	...	...	...	...	...
Cases pending December 31, 1909.....	22	...	...	...	...	...	...	...	...	1	23
Total.....	...	...	...	...	...	...	...	...	...	...	...
Amount of fines imposed.....	...	...	...	...	...	...	...	...	...	...	...

General Sanitary Inspection.

Samples of Milk Taken for Bacteriological Examination.

YEAR 1909.	WHOSE BACTERIAL CONTENT PER CUBIC CENTIMETER WAS FOUND					Spoiled.	Total.
	Under 100,000.	Between 100,000 and 250,000.	Between 250,000 and 500,000.	Between 500,000 and 1,000,000.	Over 1,000,000.		
January.....	71	30	20	23	27	2	173
February.....	34	51	36	22	8	17	168
March.....	74	93	18	21	116	9	331
April.....	118	73	48	18	124	6	387
May.....	129	75	62	54	76	6	402
June.....	75	98	44	46	174	4	441
July.....	11	61	46	45	220	3	386
August.....	39	31	18	20	124	4	239
September.....	29	3	6	2	11	..	51
October.....	121	52	37	26	8	4	248
November.....	54	25	13	21	83	..	196
December.....	186	13	14	18	39	..	270
Total.....	941	605	362	316	1,010	55	3,289

Milk Inspection—Creamery Scores.

Scores at Last Inspection.	Number Registered.
Between 1 and 25 per cent.....	5
Between 26 and 50 per cent.....	215
Between 51 and 75 per cent.....	1,056
Between 76 and 100 per cent.....	914
Total.....	2,190

Average score for year 1909..... 70.92 per cent.

Milk Inspection—Dairy Scores.

Scores at Last Inspection.	Number Registered.
Between 1 and 25 per cent.....	122
Between 26 and 50 per cent.....	17,163
Between 51 and 75 per cent.....	24,724
Between 76 and 100 per cent.....	2,457
Total.....	44,466

Average score for year 1909..... 54.52 per cent.

General Sanitary Inspection.

	New York.		Manhattan.		Brooklyn.		The Bronx.		Queens.		Richmond.	
	Stores.	Wagons.	Stores.	Wagons.	Stores.	Wagons.	Stores.	Wagons.	Stores.	Wagons.	Stores.	Wagons.
Field—												
Permits issued during 1909.....	5,204	4,363	2,892	3,310	1,327	749	759	74	243	139	73	91
Permits revoked during 1909.....	4,661	.....	3,388	.....	580	.....	490	.....	161	.....	36	.....
For discontinuance of selling	3,755	.....	2,097	.....	264	.....	415	.....	133	.....	36	.....
For violation of law.....	966	.....	451	.....	316	.....	81	.....	28	.....	.....	.....
Inspection—												
Regular inspections.....	103,753	10,690	63,391	3,956	21,302	4,204	13,579	1,108	1,726	122	3,755	1,240
Inspections at receiving stations.....	624	183	24	135	597	23	3	25	.....	.....	.....	.....
Total.....	104,377	10,873	63,415	4,091	21,899	4,227	13,582	1,193	1,726	122	3,755	1,240
*Specimens examined.....	82,494	15,750	45,828	7,430	22,017	5,326	10,435	1,239	454	232	3,700	1,343
Samples taken.....	6,918	4,693	4,615	3,275	1,735	837	292	133	152	78	124	370
Conditions found—												
Inspections finding milk above {	390	49	165	7	156	23	40	7	5	2	24	9
50 degrees.....	1,184	158	681	67	403	59	74	15	22	3	4	14
Inspections finding adulteration {	657	93	376	42	212	34	53	7	12	2	4	8
‡Warning given.....	527	65	305	25	191	25	21	8	10	1	.....	6
‡Prosecuted.....	6,362	.....	5,103	.....	.....	.....	903	.....	266	.....	.....	.....
Rooms connected contrary to {	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
sanitary code.....	98	.....	62	.....	.....	.....	5	.....	31	.....	.....	.....
Ice box badly drained.....	93	.....	451	.....	.....	.....	11	.....	.....	.....	.....	.....
Ice box unclean.....	3,666	.....	3,570	.....	1	.....	120	.....	5	.....	.....	.....
Store unclean.....	3,740	15	3,595	8	.....	.....	153	7	22	.....	.....	.....
Utensils unclean.....	322	5	165	4	.....	.....	112	1	45	.....	.....	.....
Milk not properly cooled.....	88	.....	87	.....	.....	.....	.....	.....	.....	.....	1	.....
Infectious disease.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Persons found selling without {	4,486	264	3,102	141	778	79	241	33	58	11	1	.....
permit.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Action taken—Destruction of Milk—												
Lots of milk destroyed for be- {	390	49	165	7	156	23	40	7	5	3	24	9
ing over 50 degrees.....	5,635	1,508	2,498	252	2,142	752	566	153	315	250	174	101
Quarts so destroyed.....	287	13	108	2	113	8	48	.....	9	.....	9	3
Lots of milk destroyed for be- {	5,190	115	2,587	36	1,527	69	894	.....	153	.....	29	10
ing sour.....	12	2	6	.....	3	2	3	.....	.....	.....	.....	.....
Quarts so destroyed.....	157	73	114	.....	26	73	17	.....	.....	.....	.....	.....
Lots of milk destroyed for be- {	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
ing otherwise adulterated.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quarts so destroyed.....	10,982	1,696	5,199	288	3,605	894	1,417	153	468	250	203	111
Total quarts destroyed.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Several specimens may be examined at a single inspection.

† Samples taken and analyzed.

‡ The technical definition of adulteration is found in section 53 of the Sanitary Code, the chief items being "containing less than 12 per centum of milk solids" and "containing less than 3 per centum of fats." In enforcement a distinction is made between samples whose milk solids are found between 12 per cent. and 11.4 per cent.; the former are made occasions for warning only, the latter for prosecution.

** For criminal actions see Table —.

General Sanitary Inspection.

Milk Inspection—Criminal Actions.

NEW YORK.	Adulterated Milk.		Adulterated Cream.		Unclean Receptacles.		Adulterated Condensed Milk.		Selling Milk Without a Permit.		Interference with Inspector.		Total.	
	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.
Magistrates' Court—														
New arrests.....	384	56		8		15							788	82
Held on bail*.....	382	56	142	8	261				1	2	....	....	672	76
Discharged.....	2		142		147	9			1	2	....	....	110	4
Fined.....	.....	.....	.....	.....	4	2	.....	.....	.....	.....	.....	.....	.....	.....
Sentence suspended..	.....	.....	.....	.....	110	4	.....	.....	.....	.....	.....	.....	.....	.....
Amount of fines.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$478 00	\$25 00
					\$478 00	\$25 00								
Court of Special Sessions—														
Cases pending Decem-ber 31, 1908.....	58	11	33	1	17	1	.....	.....	.....	.....	.....	.....	108	13
New cases.....	382	56	142	8	147	9			1	2	....	....	672	76
Total.....	440	67	175	9	164	10			1	2	....	....	780	89
Discharged.....	18	16	6	1	7	.....	.....	.....	.....	2	....	....	31	19
Fined.....	237	31	118	6	82	7			1	.....	....	....	438	44
Sentence suspended..	136	18	.....	.....	58	1			.....	.....	....	....	210	20
Imprisoned.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....
Cases pending Decem-ber 31, 1909.....	55	2	28	2	17	2			.....	.....	....	....	100	6
Total.....	440	67	175	9	164	10			1	2	....	....	780	89
Amount of fines.....	\$4,335 00	\$1,460 00	\$1,795 00	\$170 00	\$530 00	\$86 00	.....	.....	\$10 00	.....	....	....	\$6,670 00	\$1,710 00

* Cases held on bail in Magistrates' Courts are transferred to Court of Special Sessions for trial.

Note—Milk cases for Boroughs of Manhattan and The Bronx are tried in Court of Special Sessions, Manhattan.

Milk cases for Boroughs of Brooklyn and Queens are tried in Court of Special Sessions, Brooklyn.

Milk cases for Borough of Richmond are tried in Court of Special Sessions, Richmond.

General Sanitary Inspection.

Milk Inspection—Criminal Actions—Continued.

BOROUGH OF MANHATTAN.	Adulterated Milk.		Adulterated Cream.		Unclean Receptacles.		Adulterated Condensed Milk.		Selling Milk Without a Permit.		Interference with Inspector.		Total.	
	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.
Magistrates' Court—														
New arrests.....	215	22	89	2	190	13	...	...	...	1	...	...	494	39
* Held on bail.....	213	22	89	2	77	8	...	...	...	1	...	...	379	34
Discharged.....	2				3		...	...	...		...	...	5	1
Fined.....					110	4	...	...	...		...	...	110	4
Sentence suspended.....							...	...	...		...	...
Amount of fines.....					\$478 00	\$25 00							\$478 00	\$25 00
Court of Special Sessions—														
Cases pending Decem- } ber 31, 1908..... }	16		1		1	1	...	...	...		...	...	18	1
New cases.....	213	22	89	2	77	8	...	...	...	1	...	...	379	34
Total.....	229	22	90	2	78	9				1	...	...	397	35
Discharged.....														
Fined.....	161	3	2		1		...	...	...	1	...	...	3	4
Sentence suspended.....	49	6	69	2	71	7	...	...	...		...	...	301	22
Imprisoned.....			8		4		...	...	...	1	...	...	61	7
Cases pending Decem- } ber 31, 1909..... }							...	...	...		...	...	1	
	19		10			2					...	...	31	2
Total.....	229	22	90	2	78	9				1	...	...	397	35
Amount of fines.....	\$2,825 00	\$680 00	\$1,140 00	\$35 00	\$440 00	\$80 00							\$4,405 00	\$795 00

* Cases held on bail in Magistrates' Courts are transferred to Court of Special Sessions for trial.
NOTE.—Milk cases for Boroughs of Manhattan and The Bronx are tried in Court of Special Sessions, Manhattan.
Milk cases for Boroughs of Brooklyn and Queens are tried in Court of Special Sessions, Brooklyn.
Milk cases for Borough of Richmond are tried in Court of Special Sessions, Richmond

General Sanitary Inspection.

Milk Inspection—Criminal Actions—Continued.

	Adulterated Milk.		Adulterated Cream.		Unclean Receptacles.		Adulterated Condensed Milk.		Selling Milk Without a Permit.		Interference with Inspector.		Total.	
	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.
BOROUGH OF BROOKLYN.														
Magistrates' Court—														
New arrests.....	142	23	49	2	61	2	....	....	....	....	....	....	252	27
* Held on bail.....	142	23	49	2	61	1	....	....	....	....	....	....	252	26
Discharged.....	....	....	....	....	....	1	....	....	....	....	....	....	....	1
Fined.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sentence suspended.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Amount of fines.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Court of Special Sessions —														
Cases pending December 31, 1908....	40	11	32	1	14	....	....	....	....	....	....	....	86	12
New cases.....	142	23	49	2	61	1	....	....	....	....	....	....	252	26
Total.....	182	34	81	3	75	1	....	....	....	....	....	....	338	38
Discharged.....	18	11	4	1	6	....	....	....	....	....	....	....	28	12
Fined.....	57	13	47	1	5	....	....	....	....	....	....	....	109	14
Sentence suspended	73	10	14	....	51	1	....	....	....	....	....	....	138	11
Cases pending December 31, 1909....	34	....	16	1	13	....	....	....	....	....	....	....	63	1
Total.....	182	34	81	3	75	1	....	....	....	....	....	....	338	38
Amount of fines.....	\$1,200 00	\$623 00	\$625 00	\$50 00	\$45 00	....	....	....	....	....	....	....	\$1,870 00	\$675 00

* Cases held on bail in Magistrates' Courts are transferred to Court of Special Sessions for trial.
 NOTE—Milk cases for Boroughs of Manhattan and The Bronx are tried in Court of Special Sessions, Manhattan.
 Milk cases for Boroughs of Brooklyn and Queens are tried in Court of Special Sessions, Brooklyn.
 Milk cases for Borough of Richmond are tried in Court of Special Sessions, Richmond.

General Sanitary Inspection.

Milk Inspection—Criminal Actions—Continued.

	Adulterated Milk.		Adulterated Cream.		Unclean Receptacles.		Adulterated Condensed Milk.		Selling Milk Without a Permit.		Interference with Inspector.		Total.	
	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.
BOROUGH OF THE BRONX.														
Magistrates' Court—														
New arrests.....	20	4	1	4									28	8
*Held on bail.....	20	4	1	4	7								27	8
Discharged.....					6								1	
Fined.....					1									
Sentence suspended.....														
Amount of fines.....														
Court of Special Sessions—														
Cases pending De-}...	1				2								3	
cember 31, 1908...}	20	4	1	4	6								27	8
New cases.....														
Total.....	21	4	1	4	8								30	8
Discharged.....														
Fined.....	14	2	1	3										
Sentence suspended.....	5				6									
Cases pending De-}...	2	2		1									5	
cember 31, 1909...}					2								4	
Total.....	21	4	1	4	8								30	8
Amount of fines.....	\$220 00	\$35 00	\$10 00	\$85 00	\$45 00								\$275 00	\$120 00

*Cases held on bail in Magistrates' Courts are transferred to Court of Special Sessions for trial.
 NOTE.—Milk cases for Boroughs of Manhattan and The Bronx are tried in Court of Special Sessions, Manhattan.
 Milk cases for Boroughs of Brooklyn and Queens are tried in Court of Special Sessions, Brooklyn.
 Milk cases for Borough of Richmond are tried in Court of Special Sessions, Richmond.

General Sanitary Inspection.

Milk Inspection—Criminal Actions—Continued.

	Adulterated Milk.		Adulterated Cream.		Unclean Receptacles.		Adulterated Condensed Milk.		Selling Milk Without a Permit.		Interference with Inspector.		Total.	
	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.
BOROUGH OF QUEENS.														
Magistrates' Court—														
New arrests.....	7	1	3	.....	3	.....	.....	.....	1	.....	.....	.....	14	1
*Held on bail.....	7	1	3	.....	3	.....	.....	.....	1	.....	.....	.....	14	1
Discharged.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fined.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sentence suspended.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Amount of fines.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Court of Special Sessions—														
Cases pending Decem-ber 31, 1908.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
New cases.....	7	1	3	.....	3	.....	.....	.....	1	.....	.....	.....	14	1
Total.....	8	1	3	.....	3	.....	.....	.....	1	.....	.....	.....	15	1
Discharged.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fined.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sentence suspended.....	5	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	1
Cases pending Decem-ber 31, 1909.....	3	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	6	.....
Total.....	8	1	3	.....	3	.....	.....	.....	1	.....	.....	.....	2	.....
Amount of fines.....	\$90 00	\$100 00	\$20 00	.....	.....	.....	.....	.....	\$10 00	.....	.....	.....	\$120 00	\$100 00

* Cases held on bail in Magistrates' Courts are transferred to Court of Special Sessions for trial.
 NOTE—Milk cases for Boroughs of Manhattan and The Bronx are tried in Court of Special Sessions, Manhattan.
 Milk cases for Boroughs of Brooklyn and Queens are tried in Court of Special Sessions, Brooklyn.
 Milk cases for Borough of Richmond are tried in Court of Special Sessions, Richmond.

General Sanitary Inspection.

Milk Inspection—Criminal Actions—Continued.

	Adulterated Milk.		Adulterated Cream.		Unclean Receptacles.		Adulterated Condensed Milk.		Selling Milk Without a Permit.		Interference with Inspector.		Total.	
	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.	Store.	Wagon.
BOROUGH OF RICHMOND.														
Magistrates' Court—														
New arrests.....	6	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	7
*Held on bail.....	6	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	7
Discharged.....
Fined.....
Sentence suspended.....
Amount of fines.....
Court of Special Sessions—														
Cases pending Decem-ber 31, 1908.....
New cases.....	6	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	7
Total.....	6	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	7
Discharged.....	2	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	3
Fined.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Sentence suspended.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cases pending Decem-ber 31, 1909.....
Total.....	6	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Amount of fines.....	\$20 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$20 00

* Cases held on bail in Magistrates' Courts are transferred to Court of Special Sessions for trial.
 NOTE—Milk cases for Boroughs of Manhattan and The Bronx are tried in Court of Special Sessions, Manhattan
 Milk cases for Boroughs of Brooklyn and Queens are tried in Court of Special Sessions, Brooklyn.
 Milk cases for Borough or Richmond are tried in Court of Special Sessions, Richmond.

General Sanitary Inspection.

General Sanitary Inspection—Summary of Public Nuisance and Vacation of Premises Orders Issued by the Board of Health During Year 1900.

	New York.		Manhattan.		Brooklyn.		The Bronx.		Queens.		Richmond.	
	Public Nuisance.	Vacation of Premises.	Public Nuisance.	Vacation of Premises.	Public Nuisance.	Vacation of Premises.	Public Nuisance.	Vacation of Premises.	Public Nuisance.	Vacation of Premises.	Public Nuisance.	Vacation of Premises.
Number of orders issued.....	243	277	66	65	138	131	23	24	16	57	....	....
Number complied with.....	213	228	65	63	122	102	16	18	10	43	....	....
Number not complied with.....	30	49	1	....	16	29	7	6	6	14	....	....
Of those not complied with—												
Work in progress.....	17	31	....	....	6	17	5	4	6	10	....	....
Work not in progress.....	13	18	1	....	10	12	2	2	....	4	....	....
Of those work not in progress—												
Vacant.....	10	15	....	....	9	9	1	2	....	4	....	....
Order partly complied with.....	....	1	....	....	....	1	....	....	....	....	....	....
Nothing done.....	3	2	1	....	1	2	1	....	....	....	....	....

MILK.

During the year 1909 there has been no increase in the force assigned to the duty of inspecting milk, nor have there been any radical changes in the methods pursued in the supervision of the milk supply. Milk inspection is divided as heretofore, first, the inspection of the product and the handling of milk prior to its being offered for sale in The City of New York. Secondly, the inspection of the milk itself and the conditions under which it is offered for sale within the City. There is a supervising inspector of foods detailed in charge of each of these branches, each having inspectors assigned to them to investigate the conditions under their charge.

The milk supply, consisting of 1,650,000 quarts daily, is at present supplied from about 44,000 farms, delivering milk to 1,100 creameries, located in parts of Vermont, Massachusetts and Connecticut, New Jersey, Pennsylvania, one place in Ohio, two in Maryland, and almost the entire State of New York.

During the latter part of 1909 shipments of cream were taken from across the Canadian border into New York City. This milk is transported over eleven railroads and transportation companies, who deliver an average daily amount of milk as set forth in the following table:

Railroad.	Quarts Per Day.
Erie	238,240
Harlem	112,440
Ontario	243,760
Susquehanna	78,840
West Shore	67,440
Delaware, Lackawanna & Western.....	274,800
New York, New Haven & Hartford.....	63,000
New York Central (Long Haul).....	402,720
Hudson River Transportation Co.....	11,240
Lehigh Valley	155,520
Other sources	28,000
Total	<u><u>1,676,000</u></u>

When the milk arrives at the terminals the distributors remove it in trucks. That, which is intended for sale from the original cans in grocery stores and dairies is immediately delivered, and that, which is bottled and intended for wholesale consumption is taken to the distributing station where it is reloaded into small delivery wagons and then delivered to the householder. Practically no milk is bottled in the raw state in New York City. There are a number of large plants in which milk is put through a process of so-called pasteurization or heating, and where after treatment, it is bottled and sold in the same manner as milk bottled in the country. There are also situated in New Jersey, several milk handling plants, where raw milk from the

country is delivered in cans, and where the milk is treated and bottled and then delivered within the City. For all administrative purposes these plants may be considered as being located within The City of New York for the reason that they receive their shipment of milk at the same time as those plants within the City, and the milk is handled, prepared and sold in the same manner, so far as time is concerned, as the milk which is prepared within the City. The area of milk supply is divided into five large districts. Inspectors, known as District Supervisors, are placed in charge of these districts, supervising the work of five or six men under them, who are required to have a thorough knowledge of all conditions which exist, within his territory. He is also required to visit the various dairy farms and creameries for the purpose of making special inspections, or to decide questions which may arise from time to time owing to the difference of opinion between the owners of plants and the inspector who had previously inspected it. In addition to these assignments, one inspector was detailed to investigate all cases of infectious diseases, which were reported in the usual manner by milk producers.

The system of country milk inspection is based upon a score card on which fixed values are assumed for all of the various conditions which exist on an ideal dairy farm. The assigned score indicates the percentage of perfection attained by the farm. There is also a similar score card for creameries, or milk shipping stations.

If, upon investigation of a dairy, it is found that the score is over 90 per cent. an engraved certificate of merit is issued by the Board of Health, signed by the Secretary of the said Board.

In all other cases, after an inspection and report has been submitted by the inspector to the Department, a suitable letter of instruction is sent to the dairyman notifying him of the score which his dairy received, and also notifying him of the various defects, which must be remedied in order to make the condition of his premises perfect. It is, of course, to be understood that a perfectly proper and usable milk may be produced on a dairy where the score does not reach 100 per cent., or even 90 per cent., but there is no questioning the fact that the more nearly the score approaches perfect, the more nearly will the milk produced on that farm approach perfection. As an illustration of this, during the past year twenty-four (24) samples of milk were taken from a creamery supplied by 142 dairy farms; of these but five scores were below 60 per cent., the average score being 71 per cent., and the average bacterial content per c. c. was 44,991. Samples were taken from a creamery which was supplied by 300 dairies, 218 of which scored below 50 per cent., the average being 43 per cent. Twenty-four (24) samples from this creamery showed an average bacterial content of 2,500,000 per c. c. Numerous other instances can be cited to prove the accuracy of this theory. Acting upon the foregoing facts a decisive effort was made during the year to bring up all low score dairies to a higher standard. Letters of warning were written to the dairymen calling attention to the low score, and to previous notices requiring improvements. Notification was also given that re-inspections would be made at a designated time, usually thirty days after date. As a result over

General Sanitary Inspection.

7,000 letters of warning were sent to the owners or operators of these low score dairies. Reinspections were made at or about the time stated. It was found that at 1,560 farms no effort whatever had been made to improve the conditions surrounding the milk production. The dealers, who received the milk from these farms were notified of the existing conditions, and were informed that to continue to receive milk from farms of this character would be considered as sufficient cause to recommend the revocation of their permits to sell within the City. In addition to these exclusions, there were found 16 farms on which there were infectious diseases, which had not been reported, six of which were supplied by grossly contaminated water. Seventeen of these farms had submitted false infectious disease reports, and three others had combinations of the above condition, resulting in a most impure milk supply. In all of the above cited cases, the milk was excluded from use, the total exclusions numbering 1,602.

This action on the part of the Department has had a most beneficial result to the producers throughout the milk supplying districts, as they have almost invariably taken steps to raise their score at least above the very low one of 50 per cent. Many of the owners and tenants of farms, the milk of which had been excluded, took steps to immediately comply with the requirements of the Department. In this connection, it will be interesting to note, that the average score of all dairies inspected during the year 1908, was 57 per cent.; and that the average score of all dairies inspected during the year 1909, exclusive of the City dairies, was 70.92 per cent. The average creamery score for 1908 was 71 per cent., and the average score of creameries inspected during 1909 was per cent. This remarkable increase, which is greater than has been made in any year since the installation of the country milk inspection, is undoubtedly due to the improvements of the methods of producing milk, to the thorough training of the inspectors, many of whom have been on this work since its inception, and to a spirit of co-operation on the part of the dairy farmers and creamery owners, who have banded together in many instances to assist each other in complying with the recommendations of the Department of Health.

The dairies within the City during this past year were also considered as being part of the country work, and their inspections have been performed by men detailed from the country milk inspection force, assisted by sanitary inspectors from the various Borough offices loaned temporarily for that purpose. Department of Health notices were issued against nearly every dairy stable in the City and enforced with rigor even to the point of declaring some of the stables public nuisances and preventing the sale of milk produced therein. At the present writing the dairy stables within the City have a far higher average score than those on the milk shed due in a very large measure to the constant supervision to which they are subjected.

One of the many serious problems which is met with in the conservation of the milk supply is the question of infectious diseases as transmitted by milk. The infectious disease reports required by the Department are submitted with more regularity and with more accuracy than ever before, but notwithstanding this, there were in 1909,

General Sanitary Inspection.

two outbreaks of typhoid fever in New York City which were traced eventually to the milk supply. In one instance the infection apparently came from a "carrier" of many years standing, which of course was not reported, and in the other from cases which were unreported until the creamery supply came under suspicion and was investigated by inspectors of this Department.

On August 26, several cases of typhoid fever were reported to this Division from the Division of Communicable Diseases as having obtained their milk supply from a grocery store located in The Bronx. The milk supply from this store was obtained from three distinct sources, one from Vermont and the other two from two towns in the State of New York. The Bronx store received milk from a specified creamery in the State of New York, but at times it also received this product from other points. The milk which was sold by the Bronx store was always milk from the same company, however. It was found that a clerk in the employ of the owner of this store had typhoid fever, and while he seemed to be so isolated as not to be a menace to the public health by infecting the milk, there were so many typhoid patients who had been using milk from this store that it seemed best to stop the sale. The family of the owner consisted of a wife and two children. Specimens were taken for the Widal and Daizo reactions. One of the children gave a positive result to the test. This child was later taken seriously ill with the disease. The sale of milk at this store was discontinued until the patient's entire recovery. Twenty-one cases of typhoid fever, which had been previously reported to the Department, were found to have been using milk from this store, while four other cases in The Bronx used milk from other stores which were supplied by the same company.

About the same time as the above indicated cases, there were reported several cases of typhoid on the East Side of the Borough of Manhattan, who were using milk from stores supplied by the same company, and it was found that this milk had its origin in one town in the State of New York which we will call "C." The milk from "C." was also supplied to the previously cited store in The Bronx. Upon investigation it was found that almost all the milk shipped from this town was taken by the company, who supplied the Bronx store, and also the East Side district. As a large number of cases having in common a supply of milk from "C.," inspectors were instructed to make a thorough examination of the creamery located there, and the dairy farms producing the milk. This examination failed to reveal any present or recent cases of typhoid existing upon any of the dairy farms.

DIVISION OF CONTAGIOUS DISEASES.

The Division of Contagious Diseases has the following personnel:

- Chief of Division.
- Borough Chiefs (one for each Borough).
- Assistant Borough Chief (Borough of Manhattan only).
- Medical Inspectors (Diagnosticians).
- Medical Inspectors (Supervisors).
- Medical Inspectors (District).
- Medical Inspectors (Vaccinators).
- Veterinarians.
- Disinfectors.
- Drivers.

During the year 1909, this Division has continued its work as regards the supervision of contagious diseases largely along similar lines as have been customary heretofore.

The following contagious diseases are referred to this Division:

Diphtheria, scarlet fever, measles, German measles, smallpox, vari-cella, typhus fever, relapsing fever, asiatic cholera, plague, yellow fever, tetanus, anthrax, glanders, infectious diseases of the eye and whooping cough.

In diphtheria, when a culture taken by the attending physician and forwarded to the Department of Health shows, upon examination, diphtheria bacilli, the slip accompanying the culture is accepted as a report of case. In each Borough office, every morning, Sundays and holidays excepted, all reports of contagious diseases received during the previous 24 hours, and in cases of Sundays and holidays, every 48 hours, are grouped according to the districts in which they are located. At 9 a. m. reports of these cases are telephoned to the District Medical Inspectors from the original reports, name, age, address and disease of each patient being given as well as all other necessary information. Typewritten lists, from the original reports, according to districts, are made out, which also includes, according to districts, the fumigations performed during the previous 24 hours. The daily lists from the Borough of Manhattan, Brooklyn and The Bronx are mailed by the public printer before 6 p. m. In the Boroughs of Queens and Richmond the lists are mimeographed and mailed from the Borough office. A copy of the daily list is mailed to every Medical Inspector, also each Principal of public and parochial schools, private schools, kindergartens and day nurseries, to each hospital and institution for children and all branch public libraries, the various City departments, and once a week to many Sunday schools. The envelopes, properly addressed and stamped, in which the daily printed lists are mailed to public

Contagious Diseases.

schools in all boroughs, are furnished by the Board of Education; all other envelopes in which these lists are mailed are furnished by the Department of Health.

Every reported case of diphtheria, scarlet fever or measles is promptly acknowledged by mail, with instructions to attending physicians as regards his duties; isolation, quarantine of the patient, as well as the proper disinfection of rooms and other regulations of the Department pertaining to the particular disease reported. Should the contingency arise that the physician does not receive an acknowledgment, he may justly assume that his report has not been received by the Borough Office.

Complete record of each case of contagious disease reported is kept in the Department of Health, in an envelope, and filed under an alphabetical street list. In this envelope is filed everything relating to the case, from the original report of it to the official test card of final fumigation, and in cases of diphtheria, scarlet fever, and smallpox, the receipt from the family for goods returned after the sterilization of the same at the Department plants.

DIAGNOSTICIANS.

Diagnosticians of the Department of Health are required to diagnose:

- (1) Every suspected case of contagious disease reported;
- (2) Every case of contagious disease reported for removal to Minutemen or one of the Department hospitals;
- (3) Every case reported as typhus or yellow fever, smallpox or plague, Asiatic cholera or human glanders;
- (4) Every case of varicella reported to the Department;
- (5) All scarlet fever cases brought to the attention of the Department by medical school inspectors, as well as all cases of contagious diseases reported by medical school examiners or district medical inspectors, which have not been reported by attending physicians.

The supervisors of the division are required to keep the work of the district inspectors under careful surveillance, in order that the many details regarding their service may be carried out uniformly and thoroughly, and without the possibility of neglect.

The district medical inspector must visit each case the day it is referred to him from the Borough Office, and keep it under proper surveillance until it is terminated.

Should the patient be a school child, the district inspector must fill out and sign a special record card. These cards are filed under proper date, by school and class, the nature and number of contagious diseases of pupils that have been reported during the school year.

In the case of contagious diseases found in a hotel, the manager must be notified as regards rules of the Department concerning contagious diseases in hotels. In apartment or tenement houses where there is an elevator, the family and janitor must be notified that members of the family cannot use the same in going from the apartment, but are allowed to use the same when ascending from the street.

Contagious Diseases.

In the case of diphtheria, scarlet fever, measles, occurring in a room or apartment in the rear of or connected with a store, the latter must be closed until the case is terminated and the room fumigated. Otherwise the patient must be removed to a Department hospital.

Should merchandise be manufactured in any room of an apartment in which there exists a case of diphtheria, scarlet fever or measles, work must be stopped immediately. Should this not occur, the patient must be removed to a Department hospital. Varicella and German measles cases must be visited the day they are reported from the Borough Office, the former to remain isolated until all scabs have been shed, and the latter from seven to ten days, or longer if the case requires.

No fumigation or placarding for either of these diseases is required by the Department.

VETERINARIANS.

The duties of the veterinarians are to visit and examine all reported cases of glanders in horses, as well as all cases reported as "suspected" glanders. Every horse diagnosed by them as glandered is destroyed, and through disinfection 1-1000 bichloride of mercury solution, and hot soda solution (one-half pound to three gallons of water) is ordered for the stall and all materials which commonly are in contact with the infected animal.

When glanders occur in one horse of a stable all the horses in that stable are carefully examined. The mallein test is also applied when necessary. The records of glanders cases are kept in envelopes similar to those used for filing contagious records and filed under an alphabetical street list of stable addresses.

On some occasions the state veterinarian, after appraisalment of a glandered horse, destroyed the animal and supervised the immediate disinfection of the stable.

The Board of Health, at a meeting held October 27, 1909, amended Section 125 of the Sanitary Code to read:

"Sec. 125. No person shall keep, retain or allow, or cause to be kept, or retained at any place in the City of New York, any animal having the disease known as glanders or farcy, or any other contagious disease, but shall forthwith report every such case and the location thereof to the Department of Health; the Sanitary Superintendent or an Assistant Sanitary Superintendent of the said Department shall cause every such animal to be destroyed and the body thereof removed and disposed of in such manner as shall be by him designated."

The veterinarians are further required to examine, and test with tuberculin, cattle in dairies from which City milk is supplied:

(1) When a suspected case of contagious disease is reported in the herd.

(2) When an application is made to the Department for a permit to sell selected or guaranteed milk.

During 1908, 2,652 examinations of cattle were made.

Contagious Diseases.

During 1909, 10,262 examinations were made.

During the past year the work of the eight veterinarians was materially increased by a rather large number of "dog bite" complaints received, viz.: 2,075.

When a "dog bite" complaint is received, a veterinarian is detailed to immediately examine the dog and obtain, if possible, from the owner or other persons a thorough history of the conditions under which the person was bitten. He is then required to notify the person bitten whether the dog is rabid, vicious or neither. If rabid, the dog is destroyed and the head sent to the laboratory for verification of diagnosis, and the person bitten is advised to visit the Department Laboratory for Pasteur treatment, free of charge. If the veterinarian reports that the dog is vicious and dangerous the animal is removed to a Department plant for observation. A medical examiner examines each person bitten and reports to the Borough Office the location and extent of the wounds, and the conditions under which they were received.

After being under observation at the Department plant for a period of not less than four days each dog is again carefully examined by a veterinarian and if he be reported "vicious and too dangerous to be allowed at large," the animal is destroyed. Should the veterinarian report after four days observation that the dog is not vicious, the animal is returned to its owner. Full reports of the veterinarian and medical inspector in each case are kept in envelopes filed under the street address of the owner of the dog, with a cross card file under the street addresses of the persons bitten.

Boroughs.	"Dog Bite" Complaints.	Number of Dogs Sent to Plant for Observation.	Number Destroyed as Vicious.
Manhattan.....	1,013	114	102
Brooklyn.....	449	157	146
The Bronx.....	306	46	31
Queens.....	194	8	2
Richmond.....	113	*...	26
Total.....	2,075	325	307

* Dogs held at owners' homes under observation; not removed to Department plant.

DISINFECTORS.

Disinfectors of this division are required to fumigate with formaldehyde gas rooms infected with diphtheria, scarlet fever, measles or smallpox as per written instructions of the diagnostician and district medical inspectors. They are also required, to properly tie up and pack goods ordered removed for sterilization as well as to place test cards in the rooms from which goods are to be removed. The latter are collected, by the wagon drivers and sent to the research laboratory where they are examined and the report of this examination is sent to the Borough Office and filed in the envelope containing the records of the case.

Contagious Diseases.

After proper preparation of the apartments to be disinfected, as well as proper sealing of the same, the fumigation is proceeded with and a paster placed on the outside showing the time that the fumigation was started and the hour when the apartment may be opened.

Disinfections are also made by this division with bichloride of mercury in the strength of 1-1000 and hot soda solution, of all infected materials in stables where glanders has occurred, according to the written instructions of the veterinarians. All woodwork of infected stalls, etc., is removed and destroyed.

A proper uniform has been provided for the Disinfectors of the Department of Health during the past year.

WAGON DRIVERS.

During the past year the wagon drivers of this division have been properly uniformed. They are required to remove, after fumigation of apartments, the bedding, carpets and all other materials which are to be transferred for sterilization. Such materials are removed following cases of diphtheria, scarlet fever, and smallpox, to a sterilization plant of the Department. Upon removal of the goods a proper receipt is given and the goods are returned the following day and the receipt obtained from the owner.

On November 1 the Borough Office of Richmond was removed to commodious quarters appointed in a newly erected building at 514 Bay street, Stapleton, S. I. A decided improvement in the general condition in the office in this Borough may be noted here; more office space is now available and more efficiency of office service established.

On December 31 the office of the Borough of Brooklyn was removed to a new building erected by The City of New York at Flatbush avenue, Fleet and Willoughby streets.

Number of Contagious Diseases Reported and Number of Disinfections and Fumigations for Same During 1908 and 1909.

1908.		Disease.	1909.	
Number Cases Reported.	Number of Disinfections and Fumigations Performed.		Number Cases Reported.	Number of Disinfections and Fumigations Performed.
16,431	13,075	.....Diphtheria.....	15,097	12,279
24,426	19,174	.....Scarlet fever.....	12,475	9,430
38,276	25,304	.....Measles.....	31,954	17,882
17	16	.....Small-pox.....	9	7
1,198	984	.....Glanders—horses.....	941	856
80,348	58,553	.....Totals.....	60,476	40,454
	710	By attending physician, in addition to above.		835

Contagious Diseases.

1908.			1909.	
.....	79,878	..Treated at home .....	.....	64,146
5,730	.....	..Removed to Department hospitals by request ..	4,414	.....
388	.....	..Forced to Department hospitals.....	285	.....
1,480	.....	.. "Walked in" to Department hospitals.	1,584	.....
.....	7,598	..Total treated in Department hospitals. ....	.....	6,283
.....	1,738	..Treated in other hospitals or institutions.....	.....	1,645
.....	89,214	.....Total cases reported.....	.....	72,074

	1908.	1909.
Examination of horses.....	37,555	33,598
Blood specimens taken.....	1,429	836
Horses tested with mallein.....	1,284	616
Glandered horses condemned and destroyed.....	1,198	941
Post-mortem examinations of horses.....	72	23
Inspections of stables.....	7,296	5,686
Disinfections of stables ordered.....	1,118	904
Vaccinations of horses.....	803	351
Examination of dogs.....	4,622	5,168
Animals referred to Research Laboratory for diagnosis of rabies.....	250	199
Animals found to have rabies.....	104	57
Examinations of cows.....	2,652	10,262
Cows tested with tuberculin.....	58	6
Cows condemned.....	4	9
Examinations of other animals.....	66	1,896
Post-mortems on other animals.....	103	43

WORK PERFORMED BY THE HOSPITALS FOR CONTAGIOUS EYE DISEASES DURING THE YEAR 1909.

As in previous years, the treatment of cases of contagious eye diseases occurring among school children has been carried on, for the most part, at the Dispensary for Contagious Eye Diseases, situated at the foot of Gouverneur street and at the Hospital for Contagious Eye Diseases, No. 341 Pleasant avenue, Manhattan Borough. By far, the greater number of the patients have been cases of trachoma, referred by the medical school examiners. Cases of catarrhal and mucopurulent conjunctivitis excluded from the schools have also been treated. The amount and character of the work performed at these institutions from January 1 to December 31, 1909, is shown in the following tables:

Hospital for Contagious Eye Diseases.

Cases treated by operation.....	1,287
New cases of trachoma.....	2,018
New cases of conjunctivitis.....	1,170
New cases rejected as non-contagious.....	825
Total number of new cases.....	4,013

Contagious Diseases.

Number of revisits.....	39,988
New cases of trachoma for the year 1908.....	3,390

Dispensary for Contagious Eye Diseases.

Cases treated by operation.....	.....
New cases of trachoma.....	3,011
New cases of conjunctivitis.....	3,054
New cases rejected as non-contagious.....	878

Total number of new cases.....	6,943
--------------------------------	-------

Number of revisits.....	97,994
New cases of trachoma for the year 1908.....	6,474

The treatment of the contagious eye diseases of school children by the Department of Health was inaugurated in December, 1902, and until May of the present year, it was carried on at these two institutions alone. It was not until January, 1909, that provision was made, for a hospital to be located in the Borough of Brooklyn, and, up to this time, the large and ever-increasing number of cases in that Borough had received very little attention. A small number had, indeed, found their way to the Gouverneur Street Dispensary, some, referred by the medical school examiners and others, strange as it may seem, coming of their own volition, and most of these cases had been referred to the institution on Pleasant avenue for operation. Still, their number was relatively small, and the vast majority of the cases existing in Brooklyn had received no attention from this Department. Recommendations in this connection had been made annually, but, on account of the additional expense entailed, it had not been possible to secure the necessary appropriations. In 1909, however, funds for a Brooklyn hospital were voted by the Board of Estimate, and a building situated on Throop avenue was rented for a term of years. In May of the same year, after the necessary alterations had been partially completed, the building was opened as a dispensary. The amount and character of the work performed in this institution from May 17 to December 31, 1909, is shown in the following table:

New cases of trachoma.....	774
Cases of other contagious eye diseases.....	383
Cases rejected as non-contagious.....	215

Total number of new cases.....	1,371
--------------------------------	-------

Number of revisits.....	9,900
-------------------------	-------

Owing to the usual delays encountered in equipping an institution of this character, it has not as yet been possible to perform operations in this hospital. The arrangements for this purpose are, however,

Contagious Diseases.

nearly completed, and it is expected that operative treatment will begin early in the ensuing year. This will necessitate a slight increase in the present staff (two medical inspectors, one nurse and two domestics) which it is hoped the Board of Estimate will grant. At present, cases in Brooklyn are referred to the hospital on Pleasant avenue for operation, their subsequent treatment being conducted in the Brooklyn institution. It is hardly necessary to point out that this system not only inflicts a hardship upon these patients but, by overcrowding the hospital in Manhattan with cases from Brooklyn, it necessitates a diminution in the number of cases operated upon from the former Borough. The new hospital in Brooklyn will contain twenty beds, thus doubling the present operating capacity and the advantages, therefore, that it will bring to the Department's aid in its effect to eradicate trachoma from the public schools will obviously be very great. Not only will it be able, usually to care for the operative cases derived from Brooklyn, but, should these cases at any time be few in number, it will be capable of accommodating temporarily an excess of operative cases arising in Manhattan. The converse is equally true and the good results to be obtained from two such institutions working in harmony may readily be appreciated. It is estimated, that the cases to be operated upon within the coming year as a consequence of this will be more than double those operated on during 1909. During the year 1908 investigation of patients discharged as cured was undertaken in order to ascertain the permanency of the results which had been obtained as regards the previous treatment. This investigation has been repeated in 1909, result of which is shown in the following table:

Hospital for Contagious Eye Diseases, 1909.

	Operative.	Non-Operative.
Discharged apparently cured.....	240	196
Investigated	240	196
Found	136	129
No relapse.....	96	86
Percentage of no relapse to those found.....	70.58	66.66
Percentage of 1908.....;	66.66	62.83

Dispensary for Contagious Eye Diseases, 1909.

	Operative.	Non-Operative.
Investigated	169	552
Found	107	224
No relapse.....	82	169
Percentage of no relapse to those found.....	76.63	75.44
Percentage of 1908.....	....	....

When we consider the obstinate nature and well-known relapsing tendency of trachoma these results are certainly to be regarded as very gratifying. It must be remembered, furthermore, that a certain proportion which has been impossible to estimate, of the cases classified as *relapsing* are undoubtedly cases of *reinfection*.

When we attempt to estimate the percentage of cures in all cases treated, only an approximation can be arrived at. Many of the non-operative cases discontinued treatment after one or two visits, in fact, can be hardly considered as treated at all. These cases, for obvious reasons, have not been included in our statistics. In other instances, treatment is continued from one year into the next. It may be mentioned as a fact that, the list of non-operative cases includes many of follicular conjunctivitis, the tendency always being to treat doubtful cases as trachoma rather than to incur the possibility of a mistake in diagnosis. On this account, in all probability, the figures showing the number of cases of trachoma among school children in this city are much too high. Boldt in his classical treatise on trachoma finds cause for the same complaint of the statistics in Germany.

Medical statistics, as regards trachoma, are, as a rule, unsatisfactory, due to the fact that the disease, in its earliest stages, represents such a varied clinical picture, that numerous cases are not recognized at this period of the disease. The operative cases, however, form a much better basis upon which to estimate the percentage of cures. These cases have always been those of severe and clear, well-marked and defined, and it is only fair to assume that the vast majority of them have been cases of true trachoma. In recent years about 1,000 cases have been operated upon annually and approximately 400 operative cases have been discharged cured each year. Again it is obvious that the post-operative treatment in many cases extends from one year into the next and that, therefore, the number of cures of any one year is not necessarily derived from the cases operated upon during the twelve months reported upon. However, as the number operated upon each year is approximately the same, these figures form a fairly trustworthy basis upon which to estimate results, and a conservative statement may be made to the effect, that the experience in this institution has shown that 40 per cent. of well-marked cases of trachoma in *children* can be cured by means of expression and subsequent treatment. It may be added that investigation shows that 75 per cent. of these cures present no evidence of relapse when examined during the succeeding twelve months, and that a large but uncertain number of the relapses which come under observation are to be regarded as reinfections.

The protozoa-like bodies in the secretion of cases of trachoma, attention to which has been called by Greef, Halberstadter and Prowacek, are under observation by this Department and under investigation at the present time by the Research Laboratory. Final conclusions have not been reached as yet regarding these bodies. Of new methods of treatment there is little to be said in so far as the treatment of children is concerned. The silver salts and sulphate of copper still occupy the first place as local applications, and expression, preferably with the

Contagious Diseases.

Knapp roller forceps, is the routine operative procedure. Kuhnt's expressors have been recently introduced and have been of decided service in the so-called "gelatinous trachoma."

In regard to the treatment of trachoma in adults a decided and unlooked-for advance has been made by the employment of the method known as excision. This method of treatment, although in vogue in Eastern Prussia for the past ten years, has never found its way to the United States, and the first operations of this character were performed at the Eye Hospital of this Department in the past summer. A detailed description of this method is beyond the scope of this report, but to make mention that it includes two surgical procedures; that of the combined excision of the entire diseased tissue and the Tarsal Resection of Kuhnt; the latter only being used in the cicatricial stage. Results obtained by these procedures have been more than gratifying and they possess a great advantage over other methods inasmuch as they not only cure the patient of the disease but render him, in most instances, proof against reinfection. The treatment of trachoma in adults up to the present time has been a most disappointing undertaking. Expression

Trachoma Hospitals and Dispensaries—Number and Percentage of Apparent Cures.

	Hospital, Manhattan.	Hospital, Brooklyn.	Dispensary.	Total.
Cases Treated—				
Trachoma: operative.....	1,287	93	650	2,030
Trachoma: non-operative.....	2,018	681	2,361	5,060
Other contagious eye diseases.....	1,170	382	3,054	4,606
Discharged Apparently Cured—				
Trachoma: operative.....	277	7	146	430
Trachoma: non-operative.....	258	26	300	584
Other contagious eye diseases.....	257	28	230	515
Percentage of Those Treated Discharged Apparently Cured—				
Trachoma: operative.....	21.52	7.52	22.46	21.18
Trachoma: non-operative.....	12.78	3.82	12.70	11.34
Other contagious eye diseases.....	21.96	7.33	7.53	11.06

Trachoma Hospitals and Dispensaries—Special Annual Investigation—Number and Percentage of Permanent Cures Among Patients Discharged; Investigation Made (Dates and Duration).

	Trachoma.			
	Operative.		Non-operative.	
	Hospital, Man- hattan.	Dis- pensary.	Hospital, Man- hattan.	Dis- pensary.
Discharged apparently cured.....	277	146	258	300
Investigated.....	240	169	196	552
Found.....	136	107	129	224
No relapse.....	96	82	86	169
Percentage no relapse to those found...	70.58	76.63	66.66	75.44
Same percentage, previous investigation.....	66.66	82.50	62.83	84.55

Contagious Diseases.

has rarely resulted in cure, and the usual course of the disease has been a steady progress towards the cicatricial stage, interrupted by periods of intense suffering due to recurrent attacks of the usual inflammations which complicate this disease. The combined excision of Heistrath performed in the follicular stage is capable of curing the patient in a comparatively short time.

Trachoma Hospitals and Dispensaries—Treatment and Disposition of Cases, Trachoma Hospital, Manhattan.

	Trachoma.		Other Contagious Eye Diseases.	Total.
	By Opera- tion.*	Non- operative only.		
Cases Treated—				
Under treatment January 1, 1909.....	861	2,332	529	3,722
New cases treated in 1909.....	1,287	2,018	1,170	4,475
Total treated in 1909.....	2,148	4,350	1,699	8,197
Disposition—				
† Discharged apparently cured.....	277	258	257	.....
‡ Discontinuing before cured.....	950	1,304	738	2,992
Under treatment December 31, 1909.....	921	2,788	708	4,417
Total.....	2,148	4,350	1,699	8,197
Percentage of those treated discharged apparently cured.....	12.89	5.63	15.13	.....

* With post-operative treatment following.

† It is suggested that no totals be entered for these items, since by combining several unlike quantities a false conclusion might be drawn.

‡ A patient is considered as "discontinuing" when he does not appear for 6 months.

Trachoma Hospitals and Dispensaries—Treatment and Disposition of Cases, Trachoma Hospitals, Brooklyn.

	Trachoma.		Other Contagious Eye Diseases.	Total.
	By Opera- tion.*	Non- operative only.		
Cases Treated—				
Under treatment January 1, 1910.....	See	Note	.....	.....
New cases treated in 1909.....	93	681	382	1,156
Total treated in 1909.....	93	681	382	1,156
Disposition—				
† Discharged apparently cured.....	7	25	28	.....
‡ Discontinuing before cured.....	12	65	26	103
Under treatment December 31, 1909.....	74	590	325	992
Total.....	93	681	382	1,156
Percentage of those treated discharged apparently cured.....	7.52	3.82	7.33	.....

* With post-operative treatment following.

† It is suggested that no totals be entered for these items, since by combining several unlike quantities a false conclusion might be drawn.

‡ A patient is considered as "discontinuing" when he does not appear for 6 months.

NOTE—This Hospital was opened May 17, 1909.

Contagious Diseases.

Trachoma Hospitals and Dispensaries—Treatment and Disposition of Cases, Trachoma Dispensary.

	Trachoma.		Other Contagious Eye Diseases.	Total.
	By Opera- tion.*	Non- operative only.		
Cases Treated—				
Under treatment January 1, 1909.....	496	3,633	1,729	5,858
New cases treated in 1909.....	650	2,361	3,054	6,065
Total treated in 1909.....	1,146	5,994	4,783	11,923
Disposition—				
† Discharged apparently cured.....	146	300	230	....
‡ Discontinuing before cured.....	401	2,437	1,650	4,488
Under treatment December 31, 1909.....	599	3,257	2,903	6,759
Total.....	1,146	5,994	4,783	11,923
Percentage of those treated discharged apparently cured.....	12.74	5.00	4.81	....

* With post-operative treatment following.

† It is suggested that no totals be entered for these items, since by combining several unlike quantities a false conclusion might be drawn.

‡ A patient is considered as "discontinuing" when he does not appear for 6 months.

Trachoma Hospitals and Dispensaries—Examinations, Diagnosis and Treatment.

	Hospital, Manhattan.	Hospital, Brooklyn.	Dispensary.	Total.
Examinations—				
Examinations for diagnosis.....	5,302	1,371	6,943	13,616
Diagnoses—				
Cases rejected as non-contagious.....	827	215	878	1,920
Cases found: trachoma.....	3,305	774	3,011	7,090
Cases found: other contagious eye diseases.....	1,170	382	3,054	4,606
Total.....	5,302	1,371	6,943	13,616
Treatments—				
Trachoma: operations.....	1,287	77	650	2,014
Trachoma: post-operative.....	2,587	2,435	30,817	35,939
Trachoma: non-operative.....	35,874	5,437	44,970	86,281
Other contagious eye diseases.....	3,717	2,050	22,207	27,974
Total.....	43,565	9,999	98,644	152,208
Largest number in one day.....	287	192	881	....
Average number per day.....	175	54	339	18,933

Contagious Diseases—Prevalence of Contagious Diseases—Case Rate by Years, Boroughs, and Diseases Reported

	Number of Cases Reported.					Number per 1,000 of Population.						
	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Diphtheria and Croup —												
Year 1905.....	13,686	7,553	4,307	992	577	257	3.40	3.56	2.03	3.63	2.89	3.57
Year 1906.....	14,757	7,444	5,211	1,251	627	224	3.55	3.42	3.71	4.31	3.00	3.02
Year 1907.....	15,398	7,285	5,398	1,478	821	204	3.26	3.26	3.72	4.79	3.73	3.92
Year 1908.....	16,431	8,263	5,451	1,648	785	284	3.71	3.60	3.65	5.04	3.38	3.73
Year 1909.....	15,097	7,933	4,735	1,335	764	330	3.30	3.36	3.07	3.84	3.12	4.23
Scarlet Fever—												
Year 1905.....	8,071	4,233	2,884	495	283	176	2.00	2.00	2.11	1.81	1.42	2.44
Year 1906.....	7,881	4,068	2,766	566	342	145	1.89	1.87	1.96	1.95	1.63	1.66
Year 1907.....	15,788	8,184	5,436	1,295	655	368	3.68	3.67	3.75	3.91	2.98	4.10
Year 1908.....	21,426	12,059	8,123	2,529	1,208	417	5.52	5.26	5.44	7.73	5.59	5.43
Year 1909.....	12,475	5,999	4,275	1,101	856	274	2.73	2.51	2.77	3.33	3.49	3.51
Measles—												
Year 1905.....	19,026	9,495	7,053	1,266	924	288	2.00	4.48	5.18	4.64	4.64	4.00
Year 1906.....	38,653	18,205	13,827	3,005	1,766	1,790	9.30	8.40	9.84	10.36	8.45	21.19
Year 1907.....	16,622	10,039	4,509	1,401	424	249	3.87	4.49	3.11	4.55	1.92	3.32
Year 1908.....	38,276	18,264	12,807	4,012	1,897	696	8.65	7.97	8.45	14.10	8.17	9.16
Year 1909.....	31,954	14,766	9,881	3,714	2,118	1,475	7.00	6.27	6.42	10.67	8.64	18.91
Small-pox—												
Year 1905.....	46	12	34	.....	.....	.....	.01	.006	.025	.....	.....	.....
Year 1906.....	100	48	52	.....	.....	.....	.02	.02	.037	.....	.....	.....
Year 1907.....	58	10	46	1	1	.....	.01	.005	.032	.003	.005	.....
Year 1908.....	17	6	6	2	3	.....	.004	.003	.004	.006	.013	.....
Year 1909.....	9	5	3	.....	.....	1	.002	.002	.002	.....	.....	.013
Chicken-pox—												
Year 1905.....	5,473	2,699	1,943	421	162	248	1.35	1.27	1.43	1.54	.81	3.44
Year 1906.....	4,667	2,398	1,483	396	171	219	1.12	1.10	1.05	1.30	.81	2.96
Year 1907.....	4,308	2,050	1,452	526	107	173	1.00	.92	1.00	1.71	.49	2.31
Year 1908.....	5,928	2,718	2,045	710	297	158	1.34	1.23	1.30	2.17	1.28	2.68
Year 1909.....	6,795	3,244	2,264	593	347	317	1.48	1.39	1.47	1.70	1.42	4.06

Contagious Diseases.

Contagious Diseases—Prevalence of Contagious Diseases—Case Rate by Years, Boroughs, and Diseases Reported—Continued.

	Number of Cases Reported.						Number per 1,000 of Population.					
	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Whooping Cough—												
Year 1905.....	2,937	1,215	903	165	88	266	.65	.57	.66	.60	.44	3.69
Year 1906.....	2,177	894	747	128	63	345	.52	.41	.53	.44	.36	4.66
Year 1907.....	1,925	755	854	88	60	165	.45	.34	.59	.28	.27	2.17
Year 1908.....	1,182	467	414	133	30	132	.26	.20	.27	.41	.15	1.73
Year 1909.....	2,752	951	1,105	358	198	140	.60	.40	.72	1.03	.81	1.78
Parotiditis—												
Year 1905.....	1,310	852	313	113	5	36	.32	.40	.23	.41	.02	.50
Year 1906.....	1,942	1,181	649	90	11	11	.47	.54	.40	.31	.05	.15
Year 1907.....	982	719	177	30	5	42	.23	.32	.12	.12	.02	.50
Year 1908.....	2,131	1,372	489	140	16	114	.48	.59	.33	.43	.07	1.50
Year 1909.....	2,438	1,133	1,037	192	66	10	.53	.48	.67	.55	.27	.13
German Measles—†												
Year 1905.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Year 1906.....	421	365	18	26	3	14	.10	.16	.01	.09	.01	.....
Year 1907.....	1,477	785	435	104	26	127	.34	.35	.30	.33	.12	1.69
Year 1908.....	823	544	152	53	43	31	.18	.24	.10	.16	.18	.....
Year 1909.....	582	270	174	28	86	24	.12	.11	.11	.08	.35	.31
Total all Diseases for—												
Year 1905.....	59,258	26,059	17,437	3,452	2,039	1,271	12.49	12.31	12.80	12.64	10.35	17.65
Year 1906.....	70,598	34,658	24,747	5,462	2,083	2,748	17.00	15.91	17.62	18.83	14.27	37.13
Year 1907.....	50,431	20,827	18,307	4,842	2,009	1,356	13.17	13.36	12.63	15.72	8.54	28.68
Year 1908.....	80,214	43,693	29,487	9,827	4,375	1,932	20.17	19.06	19.70	30.05	18.86	32.10
Year 1909.....	72,073	34,212	23,474	7,381	4,435	2,571	15.79	14.53	15.25	21.21	18.10	24.90

* One case of Human Glanders.

† No record previous to 1906.

Contagious Diseases.

Contagious Diseases—District Medical Inspection.

City of New York.										
	Diphtheria.	Scarlet Fever.	Measles.	Chicken-pox.	Whooping Cough.	Small-pox.	Parotiditis.	German Measles.	Non-contagious.	Glanders (Human).
Cases reported during year 1909.....	17,644	13,022	32,926	7,073	2,780	9	2,476	592	....	1
Cases found to be "no case".....	1,887	189	160	90	4	....	13	3	....	....
Duplicates.....	400	282	601	115	23	....	19	1	....	....
Cases never found.....	170	76	211	103	1	....	6	6	....	....
Corrected totals of cases reported.....	15,097	12,475	31,954	6,765	2,752	9	2,438	582	....	....
Cases quarantined at home.....	12,105	10,602	24,958	6,570	2,632	....	2,385	528	....	....
Cases treated in contagious disease hospitals.....	2,682	2,214	1,247	25	1	9	1	3	....	....
Cases isolated in other hospitals or institutions.....	310	199	749	164	119	....	152	51	....	....
Diagnosticians—(16)										
Cases.....	2,104	3,900	2,635	747	158	8	19	208	4,724	1
Visits to cases.....	2,194	4,059	3,350	838	165	13	19	209	3,791	2
Medical Inspectors—(65)										
Cases.....	16,524	11,791	26,943	6,612	243	1	34	556	2,934	....
Visits to cases.....	57,602	73,516	88,915	13,865	339	1	41	1,058	6,003	....
District Nurses—(2)										
Cases.....	255	225	151	9	1	....	....	....	8	....
Visits to cases.....	296	424	182	9	1	....	....	....	18	....
Inspections—										
Institutions.....	....	....	....	....	....	....	....	....	....	....
Day nurseries.....	....	....	....	....	....	....	....	....	....	....
Cases removed to hospital.....	1,328	1,994	1,068	10	1	9	1	3	....	....
Cases forced to hospital.....	84	154	47	....	....	....	....	....	....	....
Cases walked into hospital.....	1,326	111	132	15	....	....	....	....	....	....
Totals.....	76,525	65,638	241,310	649	930	182	182	182	182	182

Contagious Diseases—District Medical Inspection—Continued.

	Borough of Manhattan.
Diphtheria.	9,667 1,567 377 90 7,933 5,796 1,933 210
Scarlet Fever.	6,173 78 102 24 5,909 4,435 1,336 18
Measles.	15,242 53 361 62 14,766 13,427 602 437
Chicken-pox.	3,373 23 63 43 5,244 3,157 12 75
Whooping Cough.	951 951 918 33
Small-pox.	5 5 5
Parotiditis.	1,151 10 2 6 1,133 1,073 60
German Measles.	276 1 1 4 270 264 6
Non-contagious.	..... ..... ..... ..... ..... ..... ..... .....
Glanders (Human).	1 1 1
Totals	37,139 1,732 966 229 34,212 29,064 4,208 940
Cases reported during year 1909. Cases found to be "no case." Duplicates. Cases never found. Corrected totals of cases reported. Cases quarantined at home. Cases treated in contagious disease hospitals. Cases isolated in other hospitals or institutions.	Diagnosticians—(7) Cases..... Visits to cases..... Medical Inspectors—(22) Cases..... Visits to cases..... District Nurses—(2) Cases..... Visits to cases..... Inspections— Institutions..... Day nurseries..... Cases removed to hospital..... Cases forced to hospital..... Cases walked into hospital.....
	1,288 1,292 9,228 32,211 255 296 732 70 1,131
	2,231 2,246 5,521 32,178 225 424 1,171 89 96
	1,473 1,487 12,187 39,744 151 182 756 28 118
	378 388 3,402 6,794 9 9 3 9
	30 30 62 81 1 1 5
	2 2 15 19
	132 132 270 491
	1,900 2,169 1,737 3,361 8 18
	1 2
	7,448 7,753 32,422 114,879 649 930 62 47 2,667 187 1,354

Contagious Diseases—District Medical Inspection—Continued.

Borough of Brooklyn.										
	Diphtheria.	Scarlet Fever.	Measles.	Chicken-pox.	Whooping Cough.	Small-pox.	Parotiditis.	German Measles.	Non-contagious.	Totals.
Cases reported during year 1909.....	5,074	4,490	10,203	2,421	1,128	3	1,054	177	.....	24,640
Cases found to be "no case".....	177	52	76	55	.....	.....	.....	1	.....	361
Duplicates.....	93	111	208	45	22	.....	17	.....	.....	496
Cases never found.....	69	52	128	57	1	.....	.....	2	.....	309
Corrected totals of cases reported.....	4,735	4,275	9,881	2,264	1,105	3	1,037	174	.....	23,474
Cases quarantined at home.....	4,188	3,632	9,417	2,214	1,032	.....	999	174	.....	21,051
Cases treated in contagious disease hospitals.....	528	632	249	12	1	3	1	.....	.....	1,426
Cases isolated in other hospitals or institutions.....	24	11	215	38	72	.....	37	.....	.....	397
Diagnosticians—(5)										
Cases.....	532	1,134	576	111	54	3	.....	61	2,264	4,735
Visits to cases.....	532	1,135	576	111	54	3	.....	61	958	3,430
Medical Inspectors—(26)										
Cases.....	4,918	4,095	8,313	2,229	49	1	.....	166	546	20,317
Visits to cases.....	16,861	28,468	30,727	5,379	52	1	.....	398	1,640	83,466
District Nurses—(6)										
Cases.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Visits to cases.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Inspections—										
Institutions.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53
Day Nurseries.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31
Cases removed to hospital.....	348	568	218	7	1	3	1	.....	.....	1,146
Cases forced to hospital.....	13	55	19	.....	.....	.....	.....	.....	.....	87
Cases walked into hospital.....	167	9	12	5	.....	.....	.....	.....	.....	193

Contagious Diseases.

Contagious Diseases—District Medical Inspection—Continued.

Borough of The Bronx.									
	Diphtheria.	Scarlet Fever.	Measles.	Chicken-pox.	Whooping Cough.	Small-pox.	Parotiditis.	German Measles.	Non-contagious.
Cases reported during year 1909.....	1,426	1,109	3,748	602	358	.....	192	29	.....
Cases found to be "no case".....	73	32	11	2	.....	.....	.....	1	.....
Duplicates.....	13	6	21	6	.....	.....	.....	.....	.....
Cases never found.....	5	.....	2	1	.....	.....	.....	.....	.....
Corrected totals of cases reported.....	1,335	1,101	3,714	593	358	.....	192	28	.....
Cases quarantined at home.....	1,127	978	3,572	543	344	.....	142	27	.....
Cases treated in contagious disease hospitals.....	173	166	77	.....	.....	.....	.....	.....	.....
Cases isolated in other hospitals or institutions.....	15	17	85	50	14	.....	50	1	.....
Diagnosticians—(2)									
Cases.....	123	286	249	103	4	.....	16	7	266
Visits to cases.....	148	398	897	145	4	.....	16	7	288
Medical Inspectors—(8)									
Cases.....	1,389	1,171	3,407	555	53	.....	9	25	559
Visits to cases.....	5,302	7,904	11,313	1,014	66	.....	9	46	559
District Nurses—(6)									
Cases.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Visits to cases.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Inspections—									
Institutions.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Day nurseries.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cases removed to hospital.....	168	159	76	.....	.....	.....	.....	.....	.....
Cases forced to hospital.....	1	6	.....	.....	.....	.....	.....	.....	.....
Cases walked into hospital.....	4	1	1	.....	.....	.....	.....	.....	.....
Totals.....									
	7,554	7,381	26,363	7,168	26,363	.....	.....	.....	.....
	119	46	.....	.....	.....	.....	.....	.....	.....
	8	.....	.....	.....	.....	.....	.....	.....	.....
	7,381	7,381	26,363	7,168	26,363	.....	.....	.....	.....
	6,753	6,753	26,363	7,168	26,363	.....	.....	.....	.....
	416	416	.....	.....	.....	.....	.....	.....	.....
	232	232	.....	.....	.....	.....	.....	.....	.....

Contagious Diseases—District Medical Inspection—Continued.

Borough of Queens.									
	Diphtheria.	Scarlet Fever.	Measles.	Chicken-pox.	Whooping Cough.	Small-pox.	Parotiditis.	German Measles.	Non-contagious.
Cases reported during year 1909.	835	874	2,151	351	168	.....	66	85	.....
Cases found to be "no case".	59	15	9	2	.....	.....	.....	.....	.....
Duplicates.	7	3	7	.....	.....	.....	.....	.....	.....
Cases never found.	5	.....	17	2	.....	.....	24	.....	.....
Corrected totals of cases reported.	764	856	2,118	347	168	.....	66	86	.....
Cases quarantined at home.	720	798	2,095	345	198	.....	61	42	.....
Cases treated in contagious disease hospitals.	30	50	11	1	.....	.....	.....	.....	.....
Cases isolated in other hospitals or institutions.	5	8	12	.....	.....	.....	5	44	.....
Diagnosticians—(1)									
Cases.	104	154	130	63	6	.....	.....	3	122
Visits to cases.	126	171	133	66	6	.....	.....	3	182
Medical Inspectors—(5)									
Cases.	730	789	1,992	206	24	.....	3	82	68
Visits to cases.	2,278	3,445	3,069	395	25	.....	4	104	294
District Nurses—(6)									
Cases.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Visit to cases.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Inspections—									
Institutions.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Day nurseries.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cases removed to hospital.	25	46	10	.....	.....	.....	.....	.....	.....
Cases forced to hospital.	.....	3	.....	.....	.....	.....	.....	.....	.....
Cases walked into hospital.	5	1	1	1	.....	.....	.....	.....	.....
Totals.									
	4,561	874	2,151	351	168	.....	66	85	.....
	85	15	9	2	.....	.....	.....	.....	.....
	17	3	7	.....	.....	.....	.....	.....	.....
	24	.....	17	2	.....	.....	24	.....	.....
	4,435	856	2,118	347	168	.....	66	86	.....
	4,268	798	2,095	345	198	.....	61	42	.....
	92	50	11	1	.....	.....	.....	.....	.....
	75	8	12	.....	.....	.....	5	44	.....
	582	154	130	63	6	.....	.....	3	122
	687	171	133	66	6	.....	.....	3	182
	3,954	789	1,992	206	24	.....	3	82	68
	10,204	3,445	3,069	395	25	.....	4	104	294

	28	.....	.....	.....	.....	.....	.....	.....	.....
	81	46	10	.....	.....	.....	.....	.....	.....
	.....	3	.....	.....	.....	.....	.....	.....	.....
	.....	1	1	1	.....	.....	.....	.....	.....

Contagious Diseases—District Medical Inspection—Continued.

Borough of Richmond.									
	Diphtheria.	Scarlet Fever.	Measles.	Chicken-pox.	Whooping Cough.	Small-pox.	Parotiditis.	German Measles.	Non-contagious.
Cases reported during year 1909.....	342	286	1,492	326	145	1	13	24	.....
Cases found to be "no case".....	11	12	11	8	4	.....	3	.....	.....
Duplicates.....	.....	.....	4	1	1	.....	.....	.....	.....
Cases never found.....	1	.....	2	.....	.....	.....	.....	.....	.....
Corrected totals of cases reported.....	330	274	1,475	317	140	1	10	24	.....
Cases quarantined at home.....	256	219	1,467	317	140	.....	10	21	.....
Cases treated in contagious disease hospitals.....	18	10	8	.....	.....	1	.....	3	.....
Cases isolated in other hospitals or institutions.....	56	45	.....	.....	.....	.....	.....	.....	.....
Diagnosticians—(1)									
Cases.....	57	95	207	92	64	1	1	5	163
Visits to cases.....	96	109	257	128	71	5	1	6	197
Medical Inspectors—(4)									
Cases.....	259	215	1,074	130	55	.....	7	13	24
Visits to cases.....	920	1,401	3,462	293	115	.....	9	19	149
District Nurses—(6)									
Cases.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Visits to Cases.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Inspections—									
Institutions.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Day nurseries.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cases removed to hospital.....	55	50	8	.....	.....	1	.....	3	.....
Cases forced to hospital.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Cases walked into hospital.....	19	4	.....	.....	.....	.....	.....	.....	.....
Totals.....									
	2,629	2,629	2,629	2,629	2,629	2,629	2,629	2,629	2,629
	49	49	49	49	49	49	49	49	49
	6	6	6	6	6	6	6	6	6
	3	3	3	3	3	3	3	3	3
	2,571	2,571	2,571	2,571	2,571	2,571	2,571	2,571	2,571
	2,430	2,430	2,430	2,430	2,430	2,430	2,430	2,430	2,430
	40	40	40	40	40	40	40	40	40
	101	101	101	101	101	101	101	101	101
	685	685	685	685	685	685	685	685	685
	870	870	870	870	870	870	870	870	870
	1,777	1,777	1,777	1,777	1,777	1,777	1,777	1,777	1,777
	6,428	6,428	6,428	6,428	6,428	6,428	6,428	6,428	6,428

Contagious Diseases.

Vaccinations.*

	New York, 1908.	New York, 1909.	Man- hattan.	Brook- lyn.	The Bronx.	Queens.	Rich- mond.
Vaccinations in districts.....	31,679	17,939	17,828	27	8	3	73
Vaccinations at offices.....	30,269	33,101	17,404	10,052	4,835	621	299
Vaccinations at Blackwell's Island.	20,475	14,091	14,091	....	....	....	....
Vaccinations at hospitals.....	13,004	15,191	10,496	3,302	1,393	....	....
Total vaccinations.....	95,424	80,412	59,819	13,381	6,236	604	372
Total vaccination certificates issued	42,973 ^o	18,384	8,895	6,085	2,820	383	201

* For vaccinations performed in schools see Division of Child Hygiene.

^o Includes certificates issued for vaccinations performed in schools.

Disinfection of Premises.

	New York, 1908.	New York, 1909.	Man- hattan.	Brook- lyn.	The Bronx.	Queens.	Rich- mond.
Number of Disinfectors on duty...	45	37	17	10	5	3	2
Houses Visited—							
Disinfection performed.....	63,219	45,910	23,641	13,802	4,810	2,413	1,244
Disinfection postponed.....	3,483	2,049	762	677	174	374	62
Rooms disinfected.....	106,147	74,693	43,160	18,742	7,279	3,460	2,046
Disinfections Performed—							
Diphtheria.....	13,075	12,279	5,966	4,232	1,231	587	263
Scarlet fever.....	19,174	9,430	4,473	3,218	919	593	227
Measles.....	25,304	17,882	8,586	5,577	2,233	860	626
Small-pox.....	16	7	4	2	....	....	1
Tuberculosis.....	3,415	4,269	3,128	469	271	316	85
Cerebro-spinal meningitis.....	276	210	103	54	38	7	8
Glanders (horses).....	984	856	493	229	98	24	12
Miscellaneous.....	975	977	888	21	20	26	22
Total.....	63,219	45,910	23,641	13,802	4,810	2,413	1,244
By attending physician.....	710	835	116	285	17	266	151

Goods Disinfected or Destroyed.

	New York.	Man- hattan.	Brook- lyn.	The Bronx.	Queens.	Rich- mond.
* Lots of goods.....	....	....	....	....	....	....
Received—						
By order from Divisions of Contagious) and Communicable Diseases.....)	11,821	5,472	4,103	1,359	720	167
From hospitals.....	10,293	1,070	9,222	....	....	1
Miscellaneous.....	103	102	....	....	1	....
Total.....	22,217	6,644	13,325	1,359	721	168
Lots of goods disinfected.....	55,728	15,001	35,716	3,226	1,316	460
Lots of goods destroyed.....	1838	850	676	168	128	16
Lots of goods returned.....	21,280	6,228	12,947	1,293	653	159
Number of articles disinfected.....	119,550	30,190	79,346	5,815	2,667	1,532
Number of articles destroyed.....	15,505	9,013	5,419	665	302	106
Number of articles returned.....	114,356	30,297	74,068	5,818	2,642	1,531

* A "lot of goods" consists of all articles removed for disinfection or destruction at the close of a case.

NOTE.—The items "Lots of goods disinfected" and "Lots of goods destroyed" show the figures for the full year. All other items show the "Third" and "Fourth" Quarters only.

Contagious Diseases.

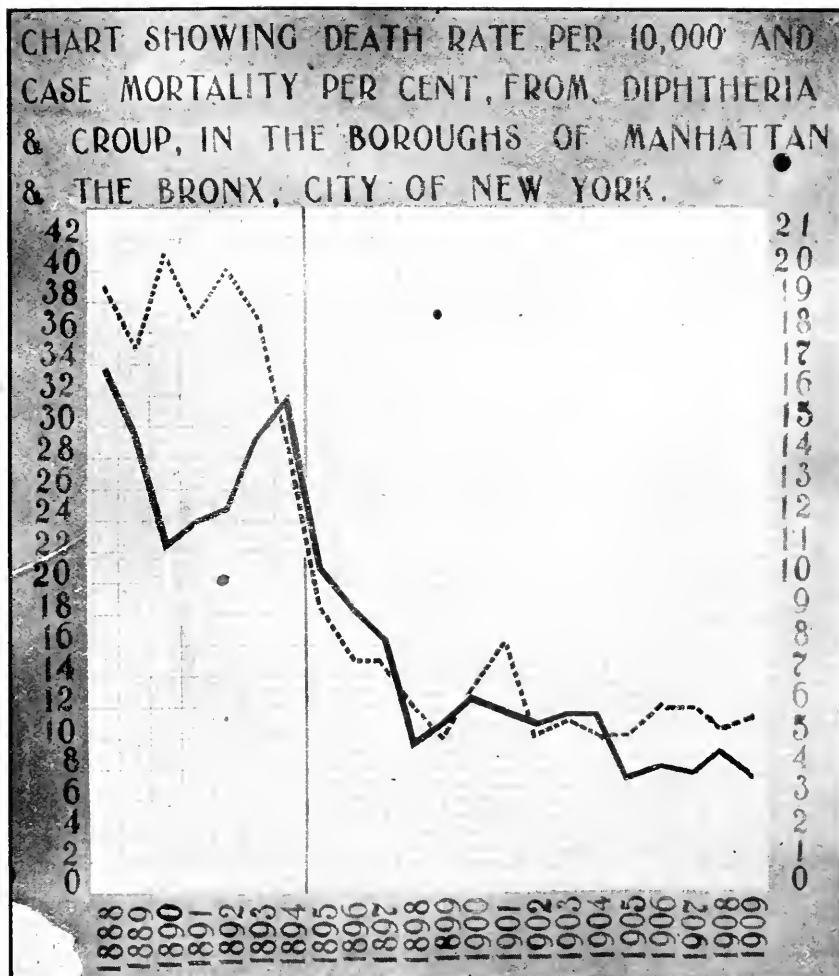
Department Stables.

	New York, 1908.	New York, 1909.	Man- hattan.	Brook- lyn.	The Bronx.	Queens.	Rich- mond.
Ambulance Drivers—							
Cases removed to hospitals....	8,008	8,188	4,031	3,603	433	....	121
Bodies removed to morgue....	92	60	46	9	5	....	....
Other visits made.....	3,851	4,335	1,003	3,057	168	....	107
Total visits.....	11,951	12,583	5,080	6,669	606	....	228
Number of times ambulances } or other vehicles disinfected }	5,633	4,982	1,910	2,158	699	....	115
Goods Wagon Drivers—							
Visits, infected goods removed.	37,049	29,363	13,378	10,649	3,345	1,503	488
Visits, disinfected goods re- } turned.....	33,207	27,014	12,616	9,276	3,312	1,335	475
Other visits made.....	3,755	2,908	1,351	343	351	171	692
Total visits.....	74,011	59,285	27,345	20,268	7,008	3,009	1,655
Stable Service—							
Average number of horses } cared for.....	59	59	15	19	10	10	5
For ambulances and goods } wagons.....	53	54	14	19	9	7	5
For executive officials.....	6	5	1	....	1	3	....

Animal Inspection.

	New York, 1908.	New York, 1909.	Man- hattan.	Brook- lyn.	The Bronx.	Queens.	Rich- mond.
Number of Veterinarians on duty..	9	10	4	2	1	1	2
Horses—							
Examinations of horses.....	37,555	33,598	23,419	2,842	1,647	708	4,982
Blood specimens taken.....	1,429	836	783	8	29	15	1
Horses tested with mallein....	1,284	616	427	138	33	6	12
Glandered horses condemned } and destroyed.....	1,198	941	449	335	113	30	14
Post-mortem examinations } of horses.....	72	23	14	....	1	1	7
Inspections of stables.....	7,296	5,686	2,911	552	387	151	1,685
Disinfection of stables ordered	1,118	904	499	267	99	24	15
Dogs—							
Examination of dogs.....	4,622	5,168	2,692	866	329	235	1,046
Animals referred to Research } Laboratory for diagnosis of } rabies.....	250	200	54	59	46	30	11
Cases of rabies.....	104	57	5	23	8	14	7
Cows—							
Examinations of cows.....	2,652	10,262	334	378	16	793	8,741
Cows tested with tuberculin ...	58	6	....	....	2	3	1
Cows condemned.....	4	9	5	....	....	3	1
Miscellaneous—							
Examinations of other animals	66	1,896	1,744	36	6	8	102
Post-mortem on other animals.	103	43	43	....	....	....	....

Chart No. 4.



SOLID LINE—CASE FATALITY PER CENT. (SEE FIGURES AT LEFT SIDE).
 BROKEN LINE—DEATH RATE PER 10,000 OF POPULATION (SEE FIGURES AT RIGHT SIDE).

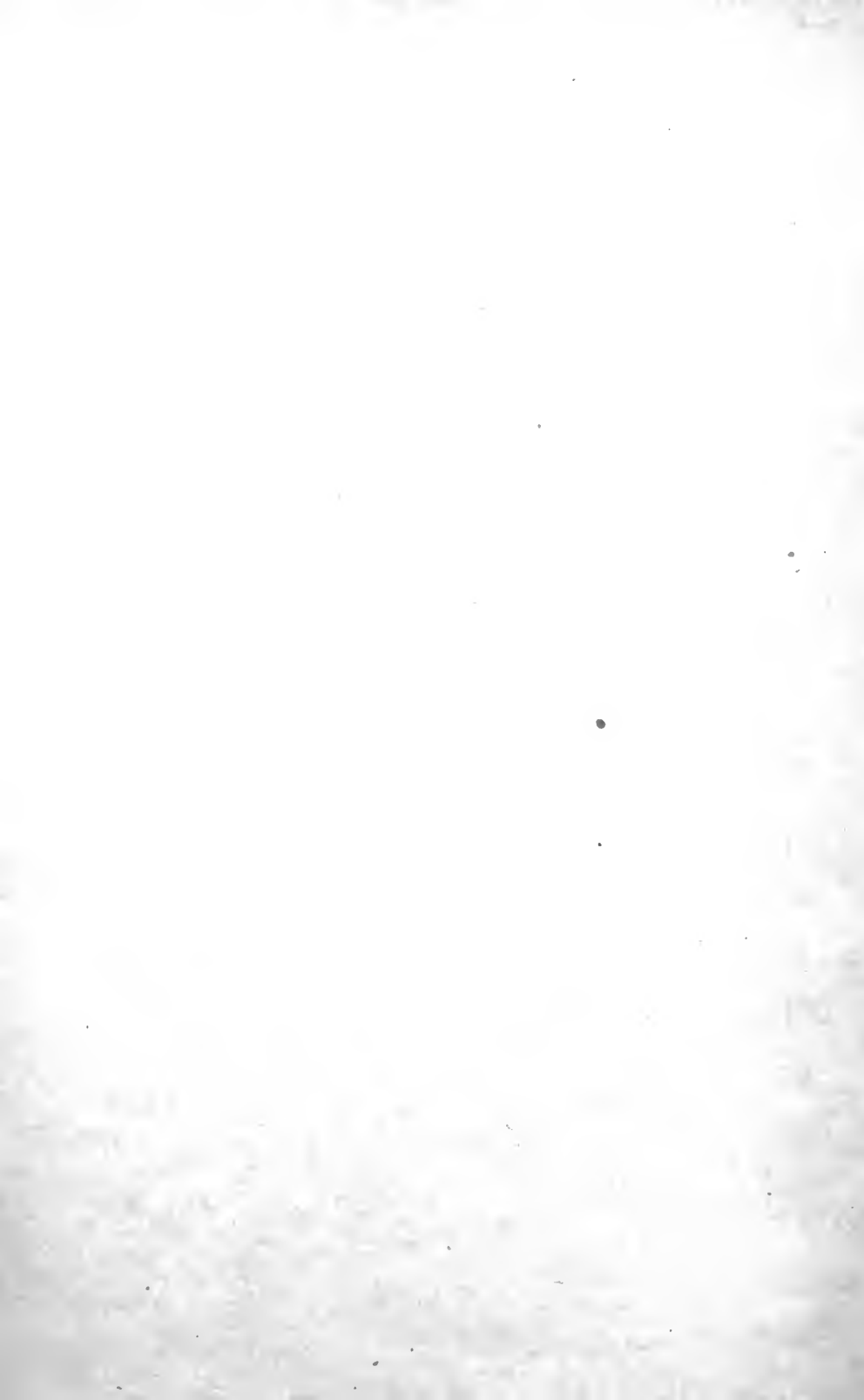
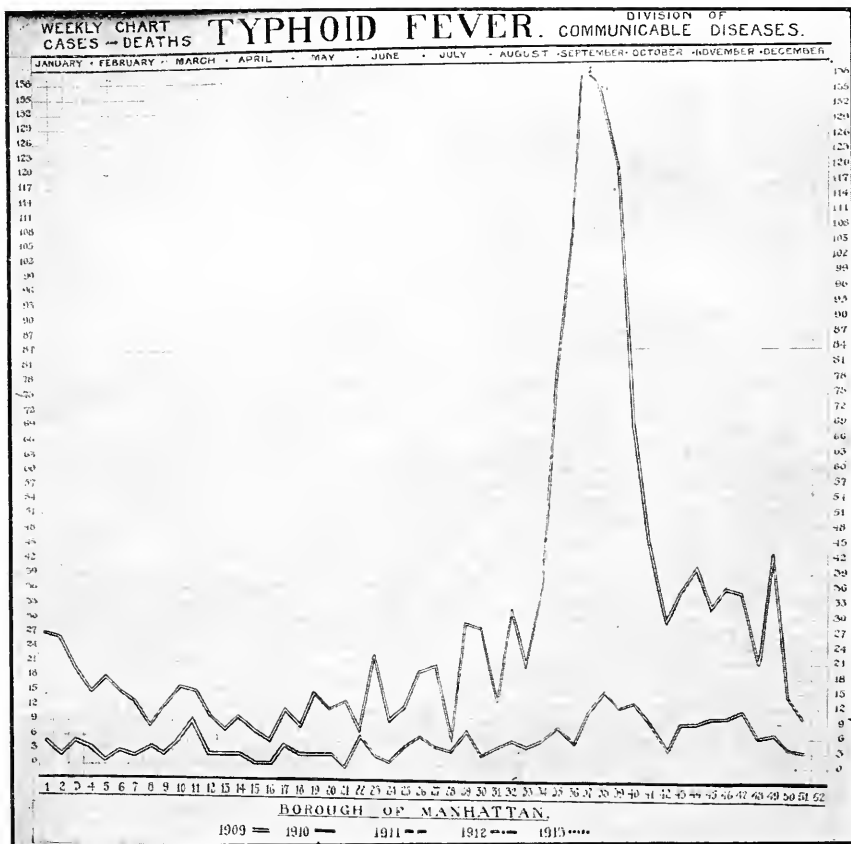


Chart No. 2, Showing the Number of Cases and Deaths from Typhoid Fever in the Borough of Manhattan, City of New York, During 1909.



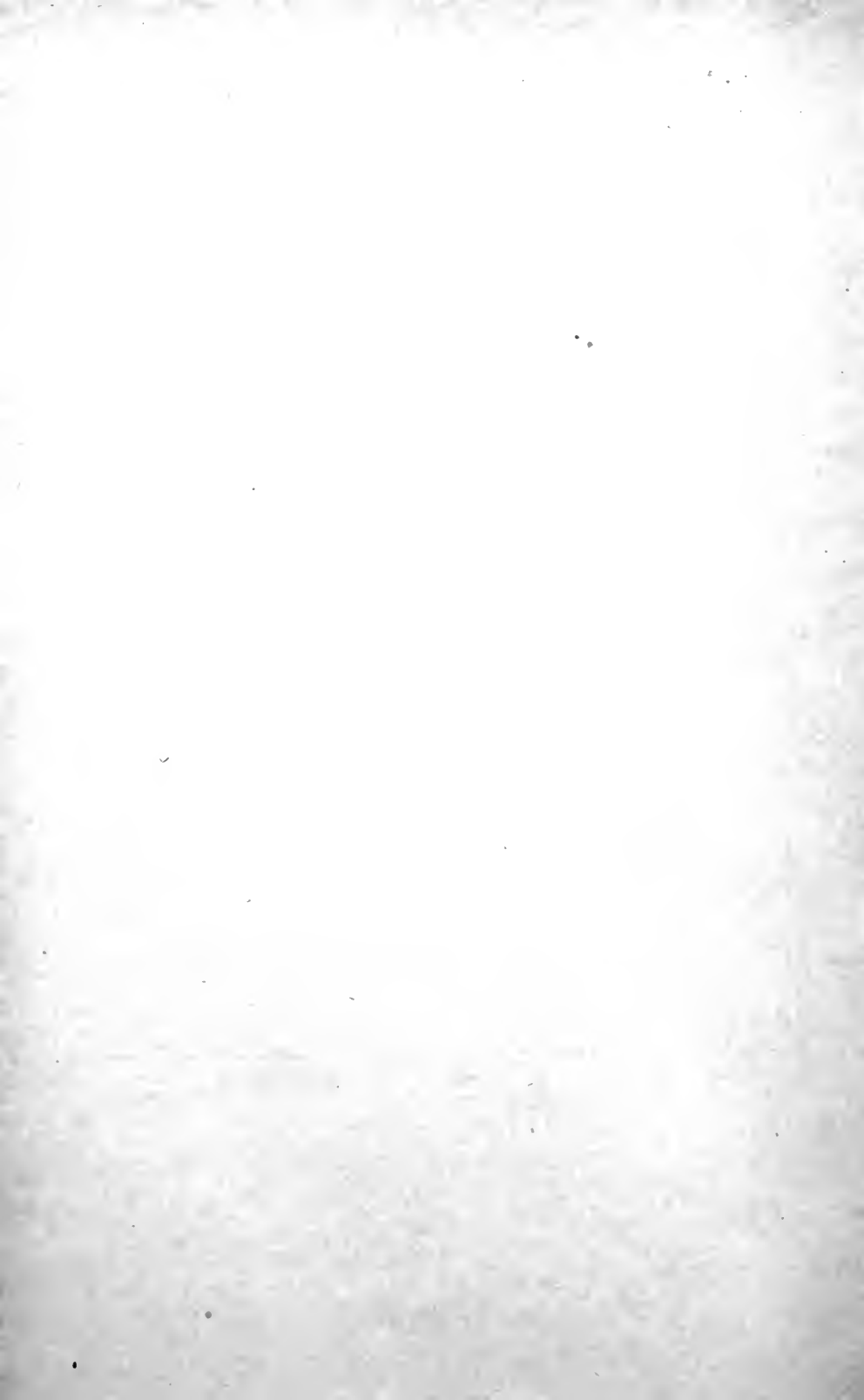
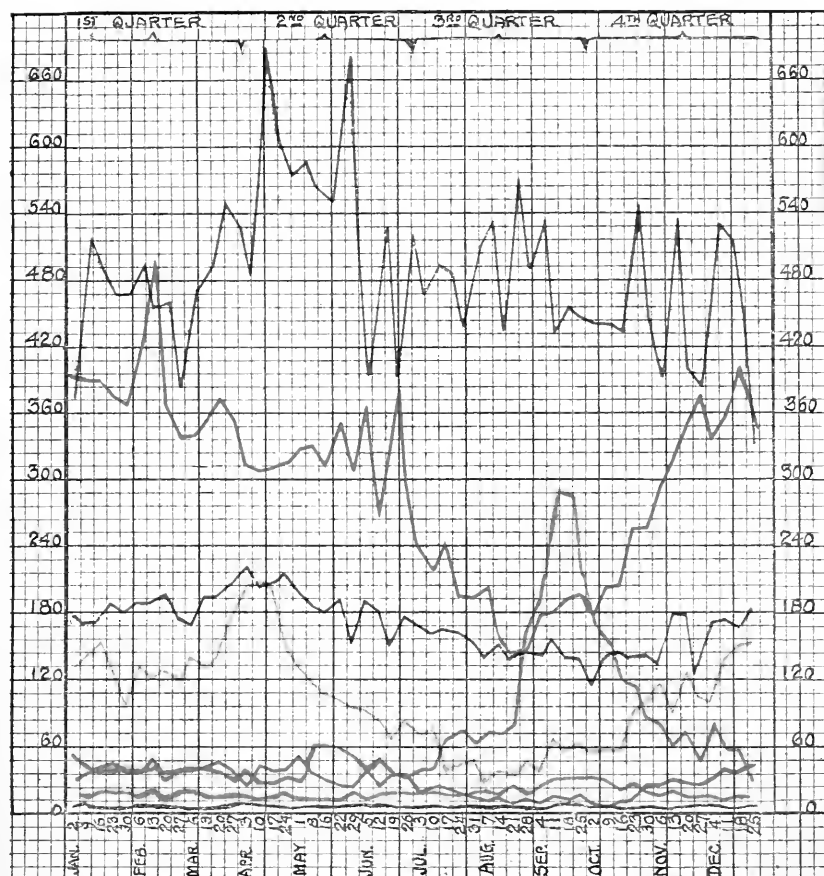


Chart No. 1 (Weekly) Cases and Deaths—Communicable Diseases—Greater New York, 1909.



KEY.

UPPER LINES—CASES.

LOWER LINES—DEATHS.

BLUE—TUBERCULOSIS. RED—DIPHTHERIA. YELLOW—TYPHOID FEVER.

Deaths Only.

GREEN—PNEUMONIA.

BLACK—CEREBRO-SPINAL MENINGITIS.



DIVISION OF COMMUNICABLE DISEASES.

EXECUTIVE OFFICE AND GENERAL ROUTINE.

The most important work of the year has been the preparation for an extended campaign against tuberculosis during the coming year, made possible by the increased appropriation in the 1910 budget for the Division of Communicable Diseases.

Although there has been no actual reduction of the working force of clerks during the year, yet the loss of experienced clerks to other city departments on account of superior salary inducements continued to hamper the work of the Division.

The salaries of the thirty-one medical inspectors of the Division were increased from \$1,200 to \$1,500 per annum, because of the special services rendered and continuous duty.

SUMMARY OF INSPECTIONS, ETC., 1908-1909.

In Table 1, is given a summary of the inspections made by the inspectors and nurses of the Division of Communicable Diseases in Greater New York for the years 1908 and 1909. Almost two thousand more inspections were made during 1909, the increase being entirely in the visits made by medical inspectors; owing to the marked reduction in the staff of nurses, seven thousand fewer visits were made during 1909 than during 1908. More premises were ordered fumigated, more bedding and goods disinfected and more cases were removed to hospital during 1909 than during the previous year.

The number of cases and deaths from tuberculosis, diphtheria, typhoid fever, cerebro-spinal meningitis and pneumonia, occurring weekly in Greater New York during 1909, are shown in Chart No. 1. The various diseases will be discussed under their proper headings later in the report.

TABLE 1.

Summary of Inspections, Visits, Etc., Division of Communicable Diseases.

	Cases Visited.		Visit to Cases.				Disinfections Ordered, 1909.		Removals to Hospitals.	
	1908.	1909.	Inspectors.		Nurses.		Premises.	Goods.	1908.	1909.
			1908.	1909.	1908.	1909.				
Tuberculosis....	16,618	18,377	21,427	23,583	33,954	26,109	4,365	5,362	446	452
Diphtheria.....	5,475	6,028	15,921	16,825	.....	.....	.....	.....	.....	.....
Typhoid.....	3,058	3,442	6,668	7,316	.....	.....	85	607	.....	.....
Cerebro-spinal)	380	346	1,089	802	.....	.....	196	145	.....	.....
meningitis }										
Malarial fever..	20	24	20	.....	.....	.....	.....	.....	.....	.....
Other.....	34	55	53	55	.....	.....	.....	.....	.....	.....
Total.....	25,585	28,272	45,178	48,581	33,954	26,109	4,646	6,114	446	452

Communicable Diseases.

TABLE 2.
Tuberculosis—General Figures.

Year.	* New Cases Reported, Phthisis.	Duplicates.	Deaths, Phthisis, Cases not Previously Reported.	Total New Cases, Phthisis.	New Cases, Phthisis, per 1,000 of Population.	Total Deaths, Phthisis.	Deaths, Other Tuberculosis.	Total Tuberculosis Deaths.	Deaths, Phthisis, per 1,000 of Population.	Deaths, All Tuberculosis, per 1,000 of Population.
New York—										
1905.....	19,117	11,642	1,714	20,831	5.17	8,535	1,123	9,658	2.12	2.40
1906.....	18,106	10,741	1,979	20,885	4.84	8,955	1,230	10,194	2.16	2.45
1907.....	17,775	13,005	1,950	19,725	4.60	9,008	1,264	10,272	2.10	2.39
1908.....	21,365	13,457	1,960	23,325	5.27	8,870	1,277	10,147	2.01	2.29
1909.....	23,570	16,223	2,097	25,667	5.62	8,643	1,267	9,910	1.89	2.17
Manhattan—										
1905.....	13,214	9,106	867	14,081	6.65	4,237	597	4,834	2.00	2.28
1906.....	11,471	7,537	1,222	12,693	5.83	4,450	710	5,160	2.05	2.37
1907.....	11,252	10,055	1,160	12,412	5.56	4,570	684	5,254	2.05	2.35
1908.....	13,357	10,721	1,377	14,734	6.42	4,423	741	5,164	1.93	2.25
1909.....	15,399	11,960	1,478	16,877	7.17	4,205	738	4,943	1.78	2.10
Brooklyn—										
1905.....	4,283	2,026	614	4,897	3.59	2,420	389	2,809	1.78	2.06
1906.....	4,847	2,202	477	5,324	3.79	2,557	389	2,946	1.82	2.10
1907.....	4,680	1,943	477	5,157	3.56	2,515	412	2,927	1.74	2.02
1908.....	5,824	1,553	409	6,233	4.17	2,484	382	2,866	1.66	1.92
1909.....	6,057	1,358	350	6,407	4.16	2,347	381	2,728	1.52	1.77
The Bronx—										
1905.....	837	358	118	955	3.50	1,441	73	1,514	5.28	5.54
1906.....	1,045	664	153	1,198	4.13	1,450	86	1,536	5.00	5.29
1907.....	1,153	691	174	1,327	4.31	1,460	97	1,557	4.74	5.05
1908.....	1,393	809	93	1,486	4.54	1,508	95	1,603	4.61	4.90
1909.....	1,437	2,437	164	1,601	4.60	1,623	88	1,711	4.66	4.92
Queens—										
1905.....	430	19	74	504	2.53	278	43	321	1.40	1.61
1906.....	504	206	99	603	2.88	308	41	349	1.47	1.66
1907.....	530	195	115	645	2.93	307	49	356	1.39	1.61
1908.....	561	353	37	598	2.57	283	38	321	1.22	1.38
1909.....	549	468	76	625	2.56	309	43	352	1.26	1.44
Richmond—										
1905.....	353	133	41	394	5.47	159	21	180	2.20	2.50
1906.....	239	132	28	267	3.60	190	13	203	2.56	2.74
1907.....	160	121	24	184	2.45	156	22	178	2.08	2.37
1908.....	230	21	44	274	3.60	172	21	193	2.26	2.54
1909.....	128	.....	29	157	2.04	159	17	176	2.04	2.26

* Excluding duplicates.

SANITARY SUPERVISION OF PULMONARY TUBERCULOSIS—GENERAL FIGURES, 1905-1909.

An entirely new system of registration and sanitary supervision has been devised of pulmonary tuberculosis, and will be put into effect shortly after the first of January.

In Table 2, are given the general figures for tuberculosis for 1909 for Greater New York and the Boroughs, together with the corresponding figures for 1908. Over 41,000 cases of pulmonary tuberculosis were reported during 1909; of these, 16,000 were duplicates and 2,000 were deaths from tuberculosis in which the cases had not previously been reported during life. The number of new living cases of

Communicable Diseases.

pulmonary tuberculosis reported was 23,500, an increase of 2,200 over 1908. This increase in new reported cases was confined almost entirely to the Borough of Manhattan, and is to be ascribed to the steadily increasing activity of the Association of Tuberculosis Clinics, in which Association the Clinics of the Department of Health play a leading part. Because of this increase in new cases the prevalence rate per thousand of pulmonary tuberculosis increased from 5.27 in 1908 to 5.62 in 1909. The deaths from pulmonary tuberculosis (8,643) were lower than they have been since 1905, giving a pulmonary tuberculosis death rate per thousand of population of only 1.89, the lowest figure on record in this city.

TABLE 3.

Deaths from Pulmonary Tuberculosis and Tuberculous Meningitis, 0-15 Years.

	0-5		5-10		10-15		Total Under 15.		Total, Both Under 15.	Deaths, Both per 1,000 of Population.
	Pul. Tub.	Tub. Men.	Pul. Tub.	Tub. Men.	Pul. Tub.	Tub. Men.	Pul. Tub.	Tub. Men.		
New York--										
1904.....	165	553	55	92	113	18	328	663	991	.254
1905.....	182	473	54	77	96	18	332	568	900	.224
1906.....	182	556	48	77	120	32	350	665	1,015	.244
1907.....	180	541	57	93	105	30	345	664	1,009	.235
1908.....	166	544	54	103	107	44	327	691	1,018	.230
1909.....	216	595	52	89	98	32	366	716	1,082	.237
Manhattan--										
1904.....	105	309	29	51	60	12	194	372	566	.275
1905.....	123	288	33	46	39	7	195	341	536	.253
1906.....	125	339	29	48	50	17	204	404	608	.280
1907.....	126	330	34	51	43	15	203	396	599	.268
1908.....	130	348	22	61	40	26	192	435	627	.273
1909.....	154	367	27	64	45	23	226	454	680	.289
Brooklyn--										
1904.....	37	168	13	34	32	5	82	207	289	.219
1905.....	43	127	10	21	26	8	79	156	235	.172
1906.....	32	146	9	23	43	11	84	180	264	.188
1907.....	39	147	10	31	31	7	80	185	265	.183
1908.....	24	135	18	28	30	14	72	177	249	.167
1909.....	25	151	13	15	24	5	62	171	233	.151
The Bronx--										
1904.....	17	44	9	4	16	....	42	48	90	.351
1905.....	15	31	7	6	29	1	51	38	89	.326
1906.....	15	46	5	3	21	3	41	52	93	.321
1907.....	6	33	11	9	28	4	45	46	91	.295
1908.....	8	38	12	9	32	1	52	48	100	.305
1909.....	23	55	9	5	26	1	53	61	119	.342
Queens--										
1904.....	1	20	3	1	5	1	9	22	31	.164
1905.....	....	19	1	2	2	1	3	22	25	.126
1906.....	4	20	4	3	4	....	12	23	35	.167
1907.....	2	26	2	2	4	2	8	24	32	.146
1908.....	1	14	2	3	2	3	5	20	25	.107
1909.....	6	14	2	2	3	2	11	18	29	.118
Richmond--										
1904.....	....	12	1	2	....	....	1	14	15	.211
1905.....	1	8	3	2	....	1	4	11	15	.208
1906.....	6	5	1	....	2	1	9	6	15	.202
1907.....	7	11	....	....	2	2	9	13	22	.293
1908.....	3	9	....	2	3	....	6	11	17	.223
1909.....	8	8	1	3	....	1	9	12	21	.269

As shown in Table 3, from 1904 to 1908, there was a steady diminution in the number of deaths among children under the age of fifteen, together with a corresponding fall in the death rate per thousand of population. But during 1909 a sudden rise in the number of such occurred; there were thirty-nine more deaths from pulmonary tuberculosis and twenty-five more deaths from tuberculous meningitis in such children than during 1908, and the death rate per thousand was .237, as compared with .230 for 1908.

TUBERCULOSIS REGISTER.

As is shown in Table 4, there was a marked increase in the number of cases of pulmonary tuberculosis enrolled in the tuberculosis files of the Department during 1909. In Manhattan the increase took place principally among the cases under care of tuberculosis clinics and the "at home" cases under supervision of the Department of Health.

The total number of living cases enrolled during 1909 was about the same as during the previous year, namely, 54,000, and only 17,000 cases were removed from the register, as compared with 25,000 in

TABLE 4.
Tuberculosis Register—Living Cases.

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Cases enrolled January 1, 1909.....	29,736	20,674	6,406	1,714	670	272
Under care of private physicians.....	6,003	3,527	1,585	601	301	79
*Under care of dispensaries or clinics....	2,189	2,189	....	....	....	....
At home and under supervision of de- partment.....	8,748	5,749	2,165	587	176	73
In institutions in city.....	3,401	2,408	676	171	50	96
In institutions outside city.....	534	356	135	32	6	5
†Not found at address given 1907 and 1908	8,771	6,445	1,847	323	137	19
New (living) cases reported.....	23,570	15,399	6,057	1,437	549	128
By physicians.....	3,806	1,852	1,408	279	233	34
By sputum.....	4,309	2,354	1,450	381	168	46
By institutions.....	15,365	11,193	3,199	777	148	48
Old cases resumed.....	703	392	249	54	5	3
Total living cases enrolled in } 1909.....	54,009	36,465	12,712	3,205	1,224	403
Cases removed from register in 1909.....	17,357	10,920	4,731	992	559	155
Deaths.....	7,722	4,287	2,570	449	328	88
Removals from city.....	1,688	942	190	460	81	40
†Not found; held for 2 years.....	7,421	5,380	1,847	45	106	15
Recovered.....	526	311	124	35	44	12
Cases enrolled December 31, 1909.....	36,652	25,545	7,981	2,213	665	248
Under care of private physicians.....	5,843	3,255	1,732	539	258	68
Under care of dispensaries or clinics....	5,476	5,000	....	476	....	....
At home and under supervision of de- partment.....	11,863	8,020	3,290	280	207	66
In institutions in city.....	3,980	3,086	597	167	41	89
In institutions outside city.....	802	553	169	65	9	6
†Not found at address given 1908 and 1909	8,688	5,631	2,193	695	150	19
Total.....	36,652	25,545	7,981	2,213	665	248

*Other than the Department clinics.

†Held in current register 2 years; after that time, removed to files.

1908. The number of removals from the city was slightly increased, while the number of cases in the "Not found" register was decreased over half, namely, from 15,450 to 7,421. This last fact is the most encouraging and means that patients are becoming more and more reconciled to furnishing their true address and that the inspectors and nurses of the Department of Health with increasing experience are able to locate a much larger percentage of these patients.

The number of deaths was slightly less during 1909 than during the previous year.

TABLE 5.
Tuberculosis—District Inspection.

	New York.	Man- hattan.	Brook- lyn.	The Bronx.	Queen's.	Rich- mond.
Inspectors—						
Premises visited on account of:						
* Deaths	6,296	3,301	1,957	457	414	167
† Cases removing to hospitals	8,816	6,260	1,823	435	191	107
† Cases removing from city	793	467	508	86	20	15
† Cases changing address.....	800	323	262	161	37	11
Cases "at home" visited on complaint..	868	618	134	82	20	14
Suspected cases.....	804	629	103	26	33	13
Total cases inspected.....	18,377	11,598	4,490	1,247	715	327
Visits to cases inspected.....	23,583	14,446	5,300	2,473	965	399
Total visits by Inspectors	23,583	14,446	5,300	2,473	965	399
Nurses—						
Total months all "at home" cases } under observation by district nurses }	1,074	268	299	405	.....	102
Visits to cases "at home" under obser- } vation	2,596	1,073	684	778	.....	61
Average visits per month per case "at } home" under observation	2.4	4.0	2.3	1.9	.....	.6
Visits to investigate or trace cases.....	9,401	4,908	3,739	447	274	43
Total visits by District Nurses....	26,109	15,571	6,810	2,442	1,008	278
Disposition of Cases—						
Forcible removal to hospital	25	13	5	6	1	.....
References of cases to hospitals ...	427	200	161	50	14	2
References of cases to charitable organi- } zations.....	179	121	37	17	1	3
Renovations compelled by inspectors' } complaints	2,011	828	626	435	91	31
Renovations made voluntarily	3,715	1,545	1,731	141	255	43
Disinfections of premises ordered	4,365	3,164	481	202	350	78
Disinfections of goods ordered	5,362	2,102	2,261	594	331	74

* From any one of several files, or not previously reported.

† From any one of several files.

DISTRICT INSPECTION.

As shown in Table 5, during 1909, there was a distinct increase in the number of cases of tuberculosis inspected by the Department of Health, and in the number of visits paid to such cases. The number of cases forcibly removed to hospital was about the same for the two years. The number of renovations ordered was greater during 1908; the number of renovations made voluntarily by the owners was greater during 1909. 1,000 more fumigations of premises were ordered dur-

ing 1909, and 1,000 more disinfections of goods. Whenever possible, renovation was ordered rather than fumigation.

DISTRICT AND CLINIC INSPECTION.

As shown in Table 6, the number of cases of pulmonary tuberculosis at their homes and not under the care of private physicians, stated in terms of months, was 107,000 during 1909, as compared with 104,000 during 1908.

Owing to the decrease in the staff of Tuberculosis District Nurses, the percentage of cases kept under observation by the Department of Health was decreased, being .9 per cent. during 1909, as compared with 1.2 per cent. in 1908.

The percentage of the total "at home" cases kept under observation by the Tuberculosis Clinics of the Department of Health showed an increase, 20.5 per cent. in 1909, as compared with 12.2 per cent. in 1908.

TABLE 6.

Summary of District Inspection of Tuberculosis and of Treatment by the Department Clinics.

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Total months all "at home" cases during year	107,506	68,951	32,521	5,202	163	609
Total months all "at home" cases under observation by district nurses	1,074	268	299	465	.....	102
Percentage of total months all "at home" cases.....	1.0	.4	.9	7.8	.....	15.2
Total months all cases "at home" under treatment or observation by Department clinics	12,193	4,743	6,009	1,441	.....	.....
Percentage of total months all "at home" cases.....	11.3	6.9	18.5	27.7	.....	.....
Total months all "at home" cases under observation or treatment by both district nurses and clinics.	13,267	5,011	6,308	1,846	.....	102
Percentage of total months all "at home" cases.....	12.3	7.3	19.4	35.4	.....	15.2

CORRECTED TUBERCULOSIS DEATH RATE.

Most of the large general tuberculosis hospitals (with the exception of the Metropolitan Hospital) are located in the Borough of The Bronx. In computing the official tuberculosis death rates for the various boroughs, each is charged with all the deaths occurring in its hospitals. This is manifestly incorrect, as is shown in Table 7, where the deaths in a given borough of residents of other boroughs are deducted from the total deaths of the Borough to which they rightfully belong. The true corrected tuberculosis death rate per 1,000 for Manhattan is therefore 2.12 instead of 1.79, a reduction of .1 from 1908. In the same way the corrected tuberculosis death rate in Brooklyn is 1.60, as compared with a corrected rate of 1.74 in 1908. The apparently enor-

TABLE 7.

Table Showing Deaths from Pulmonary Tuberculosis in All Boroughs and Death Rate per 1,000 (horizontally), also Deaths and Corrected Death Rate of Residents of each Borough (vertically), 1907-1908-1909.

	Residents of Man- hattan died in		Residents of Brooklyn died in		Residents of The Bronx died in		Residents of Queens died in		Residents of Rich- mond died in		Total deaths in each Borough			Death rate	
	1907.	1908.	1909.	1907.	1908.	1909.	1907.	1908.	1909.	1907.	1908.	1909.	1907.	1908.	1909.
Deaths in Manhattan, residents of.....	4,451	4,253	4,067												
Deaths in Brooklyn, residents of.....	3	10	6	72	96	79	8	18	15	5	6	2	4,570	4,423	4,205
Deaths in The Bronx, residents of.....	776	805	876	2,403	2,457	2,328	19	16	13	....	....	....	2,515	2,484	2,347
Deaths in Queens, residents of.....	2	2	2	58	36	47	10	8	4	3	2	1	1,400	1,508	1,613
Deaths in Richmond, residents of.....	43	39	34	1	2	1	304	279	306	....	....	....	307	285	309
Total deaths of residents in each Borough	5,275	5,109	4,985	2,626	2,600	2,405	....	....	....	111	132	114	156	181	159
Corrected Death Rate per 1,000.....	2.36	2.22	2.12	1.81	1.74	1.60	1.54	1.38	1.38	1.58	1.82	1.50	....	....	....
													2.10	2.00	....

mous death rate of 4.06 in The Bronx shrinks to 2.12, and that of Richmond from 2.04 to 1.50.

CASES OF PULMONARY TUBERCULOSIS UNDER THE CARE OF PRIVATE PHYSICIANS.

There has been a great falling off in the number of cases of pulmonary tuberculosis reported as under the care of private physicians, there being only 3,934 such cases in Greater New York in 1909, as compared with 7,512 in 1906. This shrinkage has occurred entirely in the Borough of Manhattan, and is to be ascribed to the increasing activities of the Association of Tuberculosis Clinics and to more and more cases being sent to sanatoria.

EXCLUSIONS FROM SCHOOL.

Beginning in the Autumn of 1909, all children suffering from active pulmonary tuberculosis were excluded from school. Such exclusions are ordered either by the Inspectors of the Division of Child Hygiene or by the Chiefs of the Tuberculosis Clinics. All children desiring readmission to school are required to visit one of the tuberculosis clinics of the Department of Health for examination. Special attention is paid to these tuberculous children. When the parent's consent can be gained they are sent to Otisville or other sanatorium. Where parents wish children to remain at home, arrangements are made for their admission to one of the tuberculosis boat camps.

WORK OF TUBERCULOSIS CLINICS.

As shown in Table 9, the number of cases of pulmonary tuberculosis under observation for diagnosis at the tuberculosis clinics of the Department of Health on January 1, 1909, was 857, as compared with 681 for the corresponding date of 1908. An even greater increase took place in the number of patients examined, almost 12,000 in 1909, as compared with 9,000 in 1908. Of these, 5,400 were found to be tuberculous in 1909, as compared with 4,400 in 1908.

There was a marked increase in the number of cases under treatment during the year, 15,800, as compared with 11,800 for 1908, while the number of deaths of clinic patients (134) was less than half the number for 1908 (302).

The following map of the Borough of Manhattan gives the arrangement of clinic districts in Manhattan:

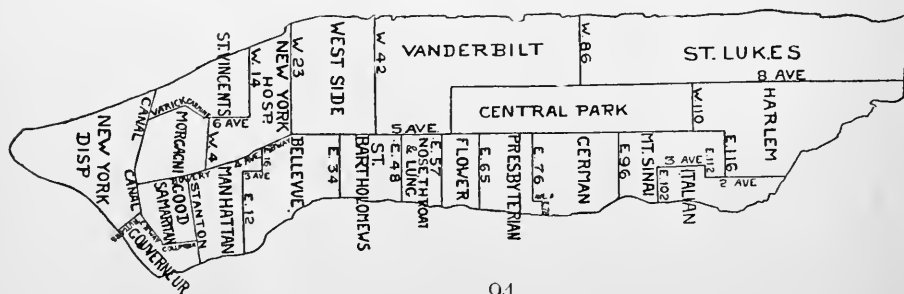


TABLE 8.

Results of Annual Investigation of Cases of Pulmonary Tuberculosis Under Care of Private Physicians, 1906, 1907, 1908, 1909.

	Manhattan.				Brooklyn.				The Bronx.				Queens.				Richmond.				New York.			
	1906.	1907.	1908.	1909.	1906.	1907.	1908.	1909.	1906.	1907.	1908.	1909.	1906.	1907.	1908.	1909.	1906.	1907.	1908.	1909.	1906.	1907.	1908.	1909.
Total number of letters sent out.....	5,736	2,436	1,968	1,980	1,261	1,511	1,375	1,255	300	288	474	476	234	160	208	223	81	83	75	....	7,612	4,487	4,100	3,034
Replies received.....	4,126	1,800	1,450	1,488	822	903	983	649	203	211	374	383	205	135	128	179	79	83	45	....	5,435	3,132	2,980	2,609
Failed to reply to notices.....	1,445	601	496	477	362	608	405	606	97	77	100	84	29	34	80	44	....	....	30	....	1,933	1,320	1,111	1,211
Notice returned—Doctor not found.....	165	35	22	15	77	....	....	....	....	....	....	9	....	....	....	....	2	....	....	....	244	35	22	24
Cases Recovered.....	266	84	108	100	39	34	108	78	22	14	16	28	....	....	....	....	7	11	2	....	334	143	234	206
Cases Improved.....	231	226	181	193	156	110	293	171	31	49	....	97	43	45	44	61	34	26	23	....	495	456	541	522
Cases Died.....	835	290	266	292	168	409	320	166	40	34	55	85	69	37	32	34	9	7	7	....	1,157	777	680	577
Cases Worse.....	29	38	20	24	36	50	80	38	5	15	....	....	12	14	5	14	8	3	3	....	90	120	108	79
No Change.....	52	49	60	79	30	62	107	50	6	15	....	....	67	11	0	0	....	6	....	....	155	143	173	135
Out of Town.....	444	239	222	180	....	35	75	23	32	39	60	64	....	5	....	....	10	10	....	....	480	339	357	267
Out of Borough.....	29	13	39	9	....	4	....	....	....	1	19	16	....	3	....	....	....	1	....	....	29	22	49	25
Cases under observation by private physicians and in file..	4,037	1,675	240	296	975	1,312	....	....	257	235	....	....	67	141	....	....	63	64	35	....	5,369	3,427	284	296
Cases no longer under doctor's care.....	2,240	841	563	611	363	199	....	123	61	53	224	93	14	20	41	64	11	19	10	....	2,689	1,132	838	891

Communicable Diseases.

TABLE 9.
Tuberculosis Clinics.

	New York.	Manhattan.	Brooklyn.	The Bronx.
Diagnosis—				
Under observation for diagnosis January 1, 1909.....	857	488	86	283
New patients examined during 1909.....	10,068	6,181	3,018	869
Readmitted for diagnosis.....	915	577	188	150
Total.....	11,840	7,246	3,292	1,302
Found not tubercular and transferred or discharged.....	1,337	1,089	86	162
Found tubercular.....	5,444	2,875	2,077	492
Discontinuing, not coming for treatment.....	4,297	2,881	1,038	378
Under observation for diagnosis December 31, 1909.....	762	401	91	270
Total.....	11,840	7,246	3,292	1,302
Cases Under Treatment—				
Under treatment January 1, 1909.....	2,257	1,054	531	672
New cases coming under treatment in 1909.....	10,068	6,181	3,018	869
Old cases coming under treatment in 1909.....	3,534	965	2,089	480
Total.....	15,859	8,200	5,638	2,021
Found not tuberculous and discharged.....	1,337	1,089	86	162
Deaths.....	134	30	47	57
Transferred to other clinics.....	2,953	2,652	277	24
Transferred to hospitals.....	336	118	146	72
Transferred to sanatoria.....	305	190	68	47
Discontinuing, not found.....	672	137	391	144
Discontinuing, not coming for treatment.....	7,882	3,366	3,912	604
Under treatment December 31, 1909.....	2,240	618	711	911
Total.....	15,859	8,200	5,638	2,021
Total months all patients under treatment by clinics.....	2,2479¼	4,743	6,008¾	11,727½
Total treatments of patients.....	53,631	21,982	25,164	6,485
Average treatment per month per patient.....	2.38	4.63	4.19	.55
Largest number of patients in one day.....	414	163	215	36
Smallest number of patients in one day.....	23	9	12	2
Visits to cases—				
Total months all patients under observation by clinic nurses.....	1,789¾	369	908¾	512
Visits to patients under observation.....	7,338	1,640	3,635	2,063
Average visits per month per case under observation.....	4.10	4.44	4.00	4.03
Other visits to cases under clinic treatment.....	1,074	955	119	....
Total visits by clinic nurses.....	8,412	2,595	3,754	2,063
Miscellaneous—				
Prescriptions filled for clinic patients.....	70,983	23,363	33,949	13,671
Referred for hospital treatment.....	674	401	231	42
Referred for charitable aid.....	225	87	114	24

THE WOMAN'S AUXILIARY TO THE TUBERCULOSIS CLINICS.

Tuberculosis Boat Camps.

Early in 1909 the Woman's Auxiliary to the Presbyterian Hospital Tuberculosis Clinic, severed its connection with that clinic for reasons not concerning the Department of Health in any way. Shortly thereafter, the Auxiliary offered its services and the use of its Day Camp, the ferryboat "Middletown," to the Manhattan Tuberculosis Clinic of the Department of Health. This offer was accepted by the Board of Health, taking effect from May 1st, 1909.

At the suggestion of the President of the Auxiliary, Mrs. J. Borden Harriman, the ownership of the ferryboat was transferred to the Department of Health through the Sinking Fund Commission.

The help thus far rendered to clinic patients has been of great benefit, as it has been mainly directed to the prompt assistance of urgent cases, thus avoiding the delay and uncertain results of routine investigations by charitable organizations.

GENERAL TUBERCULOSIS HOSPITALS IN NEW YORK CITY.

On January 1st, 1909, there were 3,401 cases of pulmonary tuberculosis in city institutions. During the summer a total of 4,500 was reached at one time. At the close of the year there were about 3,800 cases in hospitals.

The census of cases of pulmonary tuberculosis in New York City institutions, which is taken March 1st and August 1st of each year, showed that in March, 1909, there were 3,317 beds available for such cases, an increase of more than 700 beds over March of the previous year. In August, 1909, the census had fallen to 2,774, which is accountable for by the fact that the patients leave the hospitals during the warm weather. The census figures for each of the Boroughs for 1907, 1908 and 1909 are given in Table 10.

AFTER HISTORY OF CASES DISCHARGED FROM OTISVILLE.

The cases discharged from Otisville Sanatorium in 1909 have been followed up as far as possible, histories obtained, and the important facts tabulated. The results are given in Table 11. It is gratifying to note that of the 121 cases not found at the address given, 106 were discharged as improved, and of 101 cases who are not living in the city but have taken up their residence in the country, 81 were markedly benefited by the sanatorium treatment. It has been impossible to follow these cases further.

Of the 321 cases who have been found at home, 266 (83 per cent.) were much improved while in the sanatorium, and 225 (70 per cent.) of these have remained in good health after a residence of several months in New York City, often in the midst of unfavorable surroundings. A very large number of the patients are between the ages of 15 and 30.

TABLE 10.
Cases of Pulmonary Tuberculosis in New York City Institutions, 1907-1908-1909.

Borough.	Date.	Total.		New.		Old.		Out of Town.	Boroughs.				
		Male.	Females.	Male.	Females.	Male.	Females.		Queens.	Richmond.	Brooklyn.	The Bronx.	Manhattan.
Manhattan.....	1907	March	2,091	53	19	1,379	640	40	18	8	112	100	....
		August	1,821	17	8	1,179	617	32	7	6	133	100	....
	1908	March	2,139	102	31	1,148	526	43	17	23	118	131	....
		August	2,440	177	28	1,245	560	60	12	25	187	146	....
Brooklyn.....	1909	March	2,695	86	38	1,570	577	73	13	19	204	148	....
		August	2,236	98	55	1,202	495	51	28	24	119	138	....
	1907	March	72	5	....	34	43	....	....	....	....	....	....
		August	209	8	4	136	67	....	1	....	....	1	....
The Bronx.....	1908	March	241	3	4	102	64	1	4	....	....	....	....
		August	214	8	2	132	60	....	6	....	....	....	....
	1909	March	475	17	10	269	145	2	3	1	....	....	....
		August	382	11	10	226	117	....	9	1	....	....	....
Queens.....	1907	March	....	11	....	....	....	....	....	....	....	....	....
		August	111	....	5	47	43	....	....	....	....	....	....
	1908	March	177	25	12	80	34	10	4	3	....	....	....
		August	137	....	....	89	48	....	....	....	....	....	....
Richmond.....	1909	March	143	11	10	72	50	....	....	....	....	....	....
		August	154	21	16	65	28	....	....	....	....	....	....
	1907	March	261	19	12	160	52	....	10	....	....	....	....
		August	3	1	1	....	1	1	....	....	....	....	....
New York.....	1908	March	2	....	....	1	1	....	....	....	....	....	....
		August	3	1	....	....	....	....	....	....	....	....	....
	1909	March	....	....	....	....	....	....	....	....	....	....	....
		August	2	....	....	1	1	....	....	....	....	....	....
New York.....	1907	March	14	2	....	11	1	....	....	....	....	....	....
		August	11	4	....	7	....	....	....	....	....	....	....
	1908	March	23	....	....	21	2	....	....	....	....	....	....
		August	22	....	....	13	9	....	....	....	....	....	....
New York.....	1909	March	4	....	....	....	....	....	....	....	....	....	....
		August	....	....	....	....	....	....	....	....	....	....	....
	1907	March	2,442	79	31	1,584	736	40	28	8	112	100	....
		August	2,155	41	18	1,309	718	33	8	6	133	101	....
1908	March	2,582	130	48	1,411	627	54	25	26	121	131	....
	August	2,816	186	30	1,486	678	60	18	25	187	146	....
New York.....	1909	March	3,317	110	07	1,911	772	75	16	20	204	148	....
		August	2,774	130	81	394	641	51	37	25	119	138	....

OUT-OF-TOWN SANATORIA.

In Table 12 is given the census of cases of pulmonary tuberculosis from New York City in out-of-town sanatoria on December 31 of the years 1907, 1908 and 1909.

It shows that the capacity of the various out-of-town sanatoria has been increased in all except Raybrook during 1909, there being 190 beds in all on January 1, 1910, as compared with 188 on the same date of 1909.

TYPHOID FEVER.

General Figures.—As shown in Table 13, the prevalence rate of typhoid fever in New York City per thousand of population during 1909 was very low, .77. The death rate per thousand of population was the same as for 1908, .12, the lowest death rate from this disease for years.

Figures for Boroughs.—As shown in Table 14, there was a well-marked reduction in the number of cases of typhoid fever occurring in the Boroughs of The Bronx and Brooklyn during 1909, and a sharp increase in Manhattan. Typhoid fever was most fatal in the Borough of Brooklyn, where the case fatality was 16.9 per cent., and least so in the Borough of Richmond, where it was only 9.2 per cent.; the lowest death rate, however, occurred in the Borough of Manhattan, and the highest in the Borough of The Bronx.

The weekly course of the cases and deaths of typhoid fever in Greater New York for 1909 is shown in yellow in Chart 1.

In Chart 2 is given the weekly course of cases and deaths from typhoid fever in the Borough of Manhattan during 1909.

Deaths and Case Fatality by Months: Manhattan.—In Table 15, the cases, deaths and case fatality by months and the annual death rate and case incidence for the Borough of Manhattan for the years 1904 to 1909, inclusive, are given. It will be noted that in December, 1909, when the smallest number of cases for any December in five years was reported (59), the case fatality was very high (35.6). During the month of September, 1909, when more cases were reported than ever before (570), the case fatality for that month was the lowest for the year (7.9).

Manhattan and The Bronx.—As stated above, the prevalence of the disease in New York City has been remarkably slight with the exception of a sharply limited and localized outbreak in the Boroughs of Manhattan and The Bronx.

This outbreak began about August 21, and lasted about eight weeks, reaching its height the week ending September 11, when 192 cases were reported in the Borough of Manhattan, as compared with 90 cases in the corresponding week of 1908. In Manhattan the outbreak was limited to two localities, from East 82nd Street to East 86th Street, between Second and Park Avenues, and from East 59th Street to East

	5.	Char. of House.		Children in Family.	Other Cases in Family.	Under Medical Care.	Sputum.			Expect. Pres.	Precautions Observed.
		Private.	Tenement.				Positive.	Negative.	Not Stated.		
Stayed in Hospital under 1 month. 115.....		6	44	86	10	34	9	5	36	24	40
Stayed in Hospital 1 to 3 months. 229.....		11	110	226	6	73	17	17	87	64	96
Stayed in Hospital 3 to 6 months. 207.....		7	98	190	10	42	9	16	80	51	78
Stayed in Hospital over 6 months, 79.		7	38	75	3	22	7	4	34	16	32
Total, 630.*.....		31	290	477	29	17	42	42	237	155	246

* The number of for tabulation for that year.

TABLE 12.
New York City Cases of Pulmonary Tuberculosis in Out of Town Sanatoria December 31, 1907-1908-1909.

Residents of	Stony Wold.			Gabriels.			Ray Brook.			Adirondack Cottage.			Total.		
	1907.	1908.	1909.	1907.	1908.	1909.	1907.	1908.	1909.	1907.	1908.	1909.	1907.	1908.	1909.
Manhattan.....	41	39	55	8	8	11	51	69	39	20	15	27	120	131	132
Brooklyn.....	10	14	23	4	6	3	10	12	13	4	3	5	28	38	44
The Bronx.....	5	6	1	2	1	3	3	10	8	1	1	..	11	18	12
Queens.....	..	..	..	3	1	1	..	1	..	..	..	..	3	2	1
Richmond.....	2	1	..	..	..	1	1	..	..	..	1	..	3	2	1
New York City.....	58	60	79	17	16	19	65	92	60	25	20	32	165	188	190

NOTE.—In 1907 and 1908, Dr. Herbert Maxon, King, Resident Physician, Loomis Sanatorium, Liberty, New York, although repeatedly requested to furnish information as above, declined to do so and only forwarded the figures for New York City. In 1909 he declined to furnish any information whatsoever.

Communicable Diseases.

67th Street, between Second Avenue and the East River. At the same time, a localized outbreak in the neighborhood of Trinity Avenue, in the Borough of The Bronx, took place. Investigation showed that the majority of cases of typhoid fever in these neighborhoods had used milk furnished by one milk company. Further investigations showed that this milk was obtained from an out-of-town dairy where the milk was handled by a typhoid "carrier." Milk supply from this source was cut off and full instructions were given to every family in the above-mentioned neighborhoods as to the precaution to be observed and the outbreak soon came to an end.

TABLE 13.

Typhoid and Cerebro-spinal Meningitis; General Figures, New York City—Cases Reported, Case Rate, and Death Rate.

	Cases Reported.	Cases per 1,000 of Population	Deaths.	Deaths per 1,000 of Population
Typhoid—				
Year of 1904.....	3,412	.87	661	.17
Year of 1905.....	4,326	1.07	649	.16
Year of 1906.....	3,467	.84	639	.15
Year of 1907.....	4,426	1.03	740	.17
Year of 1908.....	3,058	.69	536	.12
Year of 1909.....	3,499	.77	564	.12
Cerebro-spinal meningitis—				
Year of 1905.....	2,755	.68	2,025	.50
Year of 1906.....	1,032	.24	812	.19
Year of 1907.....	828	.19	642	.15
Year of 1908.....	380	.08	316	.07
Year of 1909.....	346	.07	325	.07

TABLE 14.

Typhoid Fever—General Figures and Inspection.

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Cases reported.....	3,499	1,556	1,131	459	234	119
Cases per 1,000 of population...	.79	.66	.73	1.31	.95	1.52
Deaths from typhoid.....	564	262	191	93	37	112
Cases fatality, per cent.....	16.1	16.8	16.9	13.7	15.8	9.1
Deaths per 1,000 of population.	.124	.111	.124	.181	.151	.14
Cases not inspected on account of de- tailed report by attending physician }	57	16	30	10		1
Cases inspected.....	3,442	1,540	1,101	449	234	118
Total.....	3,499	1,556	1,131	459	234	119
Visit to cases.....	7,316	2,875	2,376	1,077	629	359
Disinfections of goods ordered.....	607	114	158	165	151	19
Disinfection of premises ordered.....	85	56	9	13		7

TABLE 15.
Typhoid Fever—Borough of Manhattan.

	1905.			1906.			1907.			1908.			1909.		
	Cases.	Deaths.	% Case Fatality.	Cases.	Deaths.	% Case Fatality.	Cases.	Deaths.	% Case Fatality.	Cases.	Deaths.	% Case Fatality.	Cases.	Deaths.	% Case Fatality.
January.....	94	17	16.0	74	10	13.5	100	18	18.0	60	11	17.3	74	15	20.
February.....	64	14	21.8	74	21	28.3	126	29	23.0	51	9	17.6	42	12	28.5
March.....	97	15	15.4	61	7	11.5	252	20	7.9	43	10	23.2	48	12	25.
April.....	255	46	18.0	299	38	12.7	478	73	15.2	154	18	11.7	164	39	23.7
May.....	51	12	23.5	61	21	34.4	206	40	19.4	53	18	33.0	33	9	27.
June.....	64	10	15.6	63	16	25.4	141	35	24.9	52	17	32.7	52	11	21.1
July.....	125	15	12.0	59	15	25.0	135	18	13.3	72	11	16.6	71	17	23.9
August.....	495	83	16.9	392	90	23.0	1,050	166	15.8	331	76	23.0	320	70	21.9
September.....	172	23	13.4	117	24	20.5	143	17	12.0	115	22	19.1	388	16	4.1
October.....	399	37	9.2	332	32	9.6	239	31	12.9	276	33	11.9	218	25	11.4
November.....	243	45	18.5	307	41	13.3	341	45	13.2	369	46	12.4	570	45	7.9
December.....	1,399	188	14.3	1,068	177	16.5	1,770	250	14.1	1,031	172	16.6	1,496	162	10.8
Total.....	210	44	20.9	262	60	23.1	307	51	16.6	184	37	20.0	103	39	37.9
Case Incidence per 10,000.....	203	21	10.2	269	46	17.1	226	36	15.9	124	28	22.6	138	40	29.
Death rate per 10,000.....	125	20	15.5	114	32	28.1	84	26	31.0	110	19	17.3	59	21	35.6
Total.....	1,847	273	14.8	1,713	325	18.9	2,387	372	15.6	1,455	256	17.6	1,556	262	16.8
Case Incidence per 10,000.....	9.9	.....	.....	7.9	.....	.....	10.6	.....	.....	6.3	.....	.....	6.6	.....	.....
Death rate per 10,000.....	.....	.....	1.38	.....	.....	1.43	.....	.....	1.66	.....	.....	1.12	.....	.....	1.1

TABLE 16.
Typhoid Fever—Tabulation of Cases, 1909—All Boroughs.

	Manhattan.		The Bronx.		Brooklyn.		Queens.		Richmond.		Greater New York.		Case Fatality by Nationalities.
	Total.	Dead.	Total.	Dead.	Total.	Dead.	Total.	Dead.	Total.	Dead.	Total.	Dead.	
United States.	41	9	10	..	14	..	10	..	1	..	76	9	13.9%
	20	8	11	1	12	8	6	2	..	..	55	5
	140	2	22	1	82	5	31	3	..	..	283	20
	98	20	26	1	40	19	26	2	4	..	194	10	
	211	8	41	8	143	26	41	5	6	1	442	59	
	61	13	42	5	121	14	38	3	3	..	258	43	
	58	13	9	3	48	14	11	3	3	..	126	33	
	28	6	5	1	40	5	3	1	..	..	85	24
	9	1	3	3	13	2	1	..	1	1	28	10	
	7	1	4	1	8	..	1	..	1	1	21	5	
Total.....	685	74	173	24	521	95	167	22	22	3	1,568	218	
Ireland.....	1	..	2	3	..	15.1%
	..	..	6	1	5	..	..	..	..	..	2	..
	1	..	3	..	3	1	..	..	..	..	12	1
	33	3	12	2	13	1	1	..	..	..	7	6
	13	1	18	1	12	2	2	..	..	..	59	4
	14	3	8	3	7	1	2	..	..	..	40	7
	6	2	2	..	3	..	..	..	..	..	31	3
	2	2	2	2	..	..	..	..	..	..	11	1
	..	..	3	2	2	2	..	..	..	..	10	4
	5	..	..	..	..	..	..	..	..	..	10	4
Total.....	75	9	51	10	48	8	5	..	..	..	179	27

Communicable Diseases.

Jewish	0-6 years..... Male	..	2	..	4	..	10	1	..	..	..	..	14	1
	Female	10	1	..	1	..	2	..	..	..	..	..	5	..
	6-16 years..... Male	12	..	4	..	..	9	2	..	..	..	..	23	2
	Female	19	..	1	..	..	..	1	1	..	..	..	23	4
	16-35 years..... Male	20	..	15	3	..	14	1	..	..	..	..	49	4
	Female	20	..	14	2	..	14	4	..	..	..	..	48	6
	35-50 years..... Male	8	..	4	1	..	5	2	2	..	..	..	19	3
	Female	7	..	3	..	..	6	2	..	..	..	..	16	2
	Over 50 years..... Male	1	..	..	..	..	1	..	..	..	..	..	2	..
	Female	2	..	..	..	..	..	..	..	..	..	..	2	..
Total.....		81	..	46	6	..	70	12	4	..	..	201	18	9.0%
Germany	0-6 years..... Male	..	..	7	1	..	1	..	..	..	..	..	8	1
	Female	..	..	4	1	..	..	..	..	..	..	..	4	1
	6-16 years..... Male	..	..	9	2	..	4	1	1	..	..	..	11	2
	Female	2	..	8	..	..	29	2	6	..	..	..	16	1
	16-35 years..... Male	22	..	18	4	..	16	3	6	1	..	..	76	8
	Female	19	..	20	..	..	6	..	6	1	..	..	62	8
	35-50 years..... Male	16	..	7	2	..	9	3	2	..	..	..	25	5
	Female	6	..	9	1	..	9	3	2	1	..	..	25	4
	Over 50 years..... Male	4	..	4	3	..	1	..	2	1	..	..	11	4
	Female	3	..	1	..	..	2	1	..	..	..	..	6	1
Total.....		66	..	87	14	..	69	10	19	5	..	244	35	14.3%
Italy	0-6 years..... Male	4	1	4	1	..	3	..	..	..	..	..	11	2
	Female	1	..	1	..	..	5	2	..	..	..	..	7	2
	6-16 years..... Male	12	..	12	2	..	17	3	2	..	..	..	41	3
	Female	7	..	8	..	..	13	4	9	..	..	..	26	4
	16-35 years..... Male	31	5	31	1	..	10	4	6	2	..	..	67	11
	Female	17	1	2	1	..	7	1	3	..	..	..	32	6
	35-50 years..... Male	8	..	3	..	..	2	1	3	..	..	..	16	2
	Female	2	..	1	..	..	1	..	1	..	..	..	4	1
	Over 50 years..... Male	3	1	..	..	..	1	..	..	..	..	..	5	1
	Female	1	..	1	..	..	..	..	..	..	..	..	2	..
Total.....		86	10	36	4	..	67	12	22	5	..	211	31	14.7%

TABLE 16—Continued.

	Manhattan.		The Bronx.		Brooklyn.		Queens.		Richmond.		Greater New York.		Case Fatality by Nationalities.
	Total.	Dead.	Total.	Dead.	Total.	Dead.	Total.	Dead.	Total.	Dead.	Total.	Dead.	
0-6 years.....	25.0%
Female	..	..	..	..	..	..	..	..	..	..	..	..
6-16 years.....	..	..	..	..	..	..	1	..	..	..	1	..
Female	..	..	..	..	..	..	..	..	..	..	..	..
16-35 years.....	1	..	..	1	..	..	..	..	..	2	..	1
Female	..	..	..	..	..	..	..	..	..	..	..	..
35-50 years.....	25.0%
Female	..	..	..	..	..	..	..	..	..	..	..	..
Over 50 years.....	..	..	..	..	..	..	..	..	..	..	..	..
Male	..	..	..	..	..	..	..	..	..	..	..	..
Female	..	..	..	..	..	..	..	..	..	..	..	..
Total.....	2	..	..	..	1	1	1	..	..	..	4	1
0-6 years.....	2	2	..	11.4%
Female	..	..	..	..	..	..	..	..	..	..	7	..
6-16 years.....	4	..	5	..	2	..	..	..	..	9	..	3
Female	..	..	2	..	4	..	..	..	..	10	..	..
16-35 years.....	57	6	8	1	34	3	7	1	3	109	10	9	
Female	39	1	10	..	18	7	1	1	..	73	9	4	
35-50 years.....	24	3	2	..	13	1	1	40	4	3	13.5%
Female	7	1	2	..	4	1	3	..	..	16	3	1
Over 50 years.....	1	..	..	..	1	1	..	..	..	5	2	1
Male	..	..	..	..	1	1	..	..	..	..	..	..
Female	1	..	..	..	..	..	..	..	..	..	..	..
Total.....	142	11	30	1	81	16	17	3	3	273	31	31	
Totals.....	1,137	110	423	59	857	154	235	35	28	3	2,686	361	13.5%
Borough case fatality.....	..	9.7%	..	13.9%	..	18.0%	..	14.9%	..	10.7%	..	13.5%	

Case Fatality by Sex.

	All Ages.		Cases.	Deaths.	Per Cent.
	Males.....	Females.....			
Males.....	1,609	208	1,071	153	12.9
Females.....	1,071	153			

Case Fatality by Ages.

Both Sexes.	Cases.		Deaths.	Per Cent.
	0-6 years.....	6-16 years.....		
0-6 years.....	194	656	21	10.8
6-16 years.....	1,318	414	47	7.2
16-35 years.....	98	98	175	13.3
35-50 years.....	98	98	90	21.7
Over 50 years.....	98	98	28	25.4

Tabulation of Cases.—As in 1908, all cases of typhoid fever occurring in Greater New York during 1909, were tabulated for each borough according to age, groups, sex, nationality, and recovered or died, together with the case fatality for each group. The results of this tabulation are given in Table 16. The highest case fatality (18 per cent.) occurred in Brooklyn, and the lowest in Manhattan (9.7 per cent.).

The disease was most fatal in persons over 50 years of age (28.4) and least so in those between 6 and 16 years (7.2 per cent.), and slightly more fatal in women than in men. Turning now to the various nationalities, we find the largest proportion of deaths (15.1 per cent.) among those of Irish descent. (Only four cases were reported among negroes during the whole of 1909. Of these, one proved fatal, giving a case fatality of 25 per cent. But because of the small number of cases, these figures are thrown out.) The lowest case fatality from typhoid fever occurred among those of Jewish descent. In 1908 the Irish and Hebrews also occupied the top and bottom of the scale.

CEREBRO-SPINAL MENINGITIS.

General Figures.—The number of cases and deaths from cerebro-spinal meningitis in New York City has continued to decrease. It was noted in the annual report for 1908 that the outbreak of epidemic cerebro-spinal meningitis, which reached its height in 1905—2,705 cases and 2,025 deaths having been reported—had come to an end at the close of 1907. As shown in Table 13, during 1909 the disease continued to be merely endemic, the death rate per thousand of population remaining at .07, and cases per thousand of population at about the same figure.

TABLE 17.

Cerebro-Spinal Meningitis—General Figures and Inspection.

	New York.	Man- hattan.	Brook- lyn.	The Bronx.	Queens.	Rich- mond.
Cases reported	346	192	*93	44	9	8
Cases per 1,000 of population .....	.07	.08	.06	.12	.04	.10
Deaths.....	320	184	*95	34	8	4
Cases fatality, per cent.....	.942	95.8	*....	77.3	88.9	.50
Deaths per 1,000 of population .....	.071	.078	.062	.097	.032	.052
Cases visited.....	346	192	93	.44	9	8
Visits to cases	802	341	195	101	37	108
Disinfections of premises ordered.....	196	98	53	34	6	5
Disinfections of goods ordered.....	145	51	53	32	6	3

* In a few cases, the history obtained from the attending physician, subsequent to death, showed the case to be not one of cerebro-spinal meningitis. These cases have been deducted from the number of cases reported but not from the deaths.

Borough Figures and Inspections.—As shown in Table 17, the highest percentage of cases of cerebro-spinal meningitis per 1,000 of population during 1909 occurred in the Borough of The Bronx, .10 as compared with .14 for Richmond for 1908. The number of deaths was slightly increased in the Borough of The Bronx and Brooklyn during 1909.

The disease was also more fatal, as is apt to be the case in endemic years, for the reason that doubtful cases, which usually recover, are not so apt to be included.

ADMINISTRATION OF DIPHTHERIA ANTITOXIN.

General Figures.—As shown in Table 18, fewer cases of diphtheria were reported in Greater New York during 1909 than during either of the previous years.

Taking the increase of population into consideration the case prevalence (3.31) was lower than at any time during the past seven years.

The death rate fell from .40 to .38, but the case fatality was increased, same being 11.4.

The proportion of cases of diphtheria injected by antitoxin inspectors of the Department of Health continued to steadily increase, having risen from 14.9 per cent. in 1904 to 39.9 per cent. in 1909. The increase has been greatest in the Borough of Manhattan, where during 1909 over half the cases were injected by Department inspectors. The lowest proportion of cases injected by diphtheria inspectors was in the Borough of Queens, 16.5.

Diphtheria was distinctly more prevalent in the Borough of Richmond, the case prevalence rising from 3.73 per thousand in 1908 to 4.20 per thousand in 1909. The cases were all mild, however, the death rate being the lowest of all the Boroughs (.26) per thousand, and the case fatality only 6.7 per cent. The death rate was also very low in the Borough of The Bronx, .29 per thousand.

TABLE 18.
Diphtheria—General Figures.

Year.	Cases Reported.	Cases per 1,000 of Population.	Deaths.	Deaths per 1,000 of Population.	Cases Fatality Per Cent.	Per Cent. of Cases Reported Injected at Home by Department of Health.
New York—						
1904.....	18,118	4.65	2,084	.53	11.4	*....
1905.....	13,686	3.40	1,544	.38	11.2	14.9
1906.....	14,757	3.55	1,898	.46	12.8	16.1
1907.....	15,276	3.56	1,740	.41	11.3	33.7
1908.....	16,431	3.71	1,758	.40	10.7	34.3
1909.....	15,097	3.31	1,714	.38	11.4	39.9
Manhattan—						
1904.....	11,016	5.34	1,123	.54	10.1	17.6
1905.....	7,553	3.56	660	.31	8.7	22.9
1906.....	7,444	3.42	731	.34	9.8	21.3
1907.....	7,285	3.26	841	.38	11.5	47.6
1908.....	8,263	3.60	939	.41	11.3	45.7
1909.....	7,933	3.37	963	.41	12.1	53.5
Brooklyn—						
1904.....	5,026	3.80	706	.53	14.0	*....
1905.....	4,307	3.16	594	.44	13.7	4.2
1906.....	5,211	3.71	793	.56	15.2	8.1
1907.....	5,398	3.72	603	.42	11.1	17.5
1908.....	5,451	3.65	540	.41	10.0	20.0
1909.....	4,735	3.08	556	.36	11.7	22.1

*No record.

Communicable Diseases.

TABLE 18—*Continued.*

Year.	Cases Reported.	Cases per 1,000 of Population.	Deaths.	Deaths per 1,000 of Population.	Cases Fatality Per Cent.	Per Cent. of Cases Reported Injected at Home by Department of Health.
The Bronx--						
1904.....	1,167	4.56	149	.58	12.7	33.3
1905.....	992	3.63	200	.73	20.1	18.3
1906.....	1,251	4.31	252	.87	20.1	21.3
1907.....	1,478	4.79	174	.56	11.7	37.9
1908.....	1,648	5.04	158	.48	9.6	35.0
1909.....	1,335	3.84	102	.29	7.7	38.1
Queens--						
1904.....	517	2.73	71	.38	13.7	*....
1905.....	577	2.90	72	.36	12.4	9.6
1906.....	627	3.00	94	.45	14.9	12.7
1907.....	821	3.73	90	.43	11.6	20.3
1908.....	785	3.38	91	.39	11.6	16.7
1909.....	764	3.13	73	.30	9.6	16.5
Richmond--						
1904.....	432	6.08	35	.49	8.1	*....
1905.....	257	3.57	18	.25	7.0	3.0
1906.....	224	3.02	28	.38	12.5	4.0
1907.....	294	3.92	31	.41	10.5	10.9
1908.....	284	3.73	26	.34	10.2	22.5
1909.....	330	4.29	20	.26	6.1	31.5

*No record.

INJECTION OF DIPHTHERIA ANTITOXIN, INTUBATION, IMMUNIZATION:

As shown in Table 19, although the number of cases of diphtheria in Greater New York during 1909 was less than in 1908, yet the number of cases injected by inspectors of the Department of Health was over 300 more than in 1908, the percentage of the total cases injected by Department inspectors rising from 34.3 per cent. to 40.1 per cent.

This increased demand by physicians for the services of the antitoxin inspectors is shown by the decrease in the number of cases injected by private physicians with the antitoxin furnished free by the Department of Health, the percentage of such cases falling from 12.5 per cent. to 10.8 per cent.

The highest percentage of cases injected by Department inspectors occurred in the Borough of Manhattan (53.3 per cent.), and the lowest in Queens (16.5 per cent.).

The percentage of cases injected by physicians with antitoxin furnished by the Department of Health was about 10 per cent. in all Boroughs, except The Bronx, where it was high (21.6 per cent.), showing a commendable desire on the part of physicians of that Borough to look after their own cases.

The number of actual cases of diphtheria injected by Department inspectors was slightly less than in 1908, and the number of deaths quite markedly increased, so that the case fatality of these cases rose from 3.6 per cent. in 1908 to 5.0 per cent. in 1909. The lowest case fatality among the inspectors' cases occurred in the Borough of Manhattan (3.3 per cent.); the highest in the Borough of Queens (20 per cent.).

The number of cases injected by private physicians with antitoxin by the Department of Health was about the same as in 1908, the case fatality (9.7 per cent.) being slightly increased during 1909. Taking the population of the Boroughs into consideration the largest number of physicians' cases occurred in The Bronx, where the case fatality (2.8 per cent.) was lower.

TABLE 19.

* *Diphtheria: Injection, Intubation and Immunization.*

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Injection of Antitoxin—						
Cases of diphtheria reported.....	15,097	7,933	4,735	1,335	764	330
Cases injected by Department Inspectors.....	6,028	4,241	1,048	509	126	104
Percentage injected by Department Inspectors.....	39.9	53.3	22.1	38.1	16.5	31.5
† Cases injected by private physicians.....	1,638	723	512	288	82	33
Percentage injected by private physicians.....	10.8	9.1	10.8	21.6	10.7	10.0
By Department Inspectors, cases injected considered as diphtheria.....	2,830	1,749	534	350	95	102
Deaths.....	142	58	30	23	19	12
Case fatality, per cent.....	5.0	3.3	.6	6.6	20.0	11.7
‡ Deaths, moribund deducted.....	99	38	521	18	13	9
Case fatality, per cent., moribund deducted.....	3.5	2.2	3.9	5.1	13.6	9.0
† By private physicians, cases injected, considered as diphtheria.....	1,259	566	346	249	68	30
Deaths.....	121	69	38	7	6	1
Case fatality, per cent.....	9.6	12.2	10.9	2.8	8.8	3.3
‡ Deaths, moribund deducted.....	84	49	24	5	5	1
Case fatality, per cent., moribund deducted.....	6.7	8.7	6.9	2.0	7.4	3.3
Intubation of Laryngeal cases —						
By Department Inspectors.....						
Total laryngeal cases.....	524	254	122	107	20	21
Deaths.....	76	26	21	14	7	8
Fatality, per cent.....	14.5	10.2	17.2	13.1	35.0	38.1
Cases intubated.....	140	36	41	43	10	10
Deaths.....	47	12	14	9	4	8
Fatality per cent.....	33.6	33.3	34.1	20.9	40.0	80.0
Cases not intubated.....	384	218	81	64	10	11
Deaths.....	29	14	7	5	3	.....
Fatality per cent.....	7.6	6.4	8.6	7.8	30.0	.....
Immunization—						
By Department Inspectors.....	10, 51	5,425	2,915	1,620	548	343
Number contracting disease between 2 and 30 days.....	27	8	5	1	8	5
Visits—						
Total visits to diphtheria cases.....	16,825	9,375	4,489	1,798	719	444
Average visits per case.....	2.8	2.2	4.3	3.5	5.7	4.3
Total injections.....	6,486	4,557	1,111	558	139	121

* Quarantine is maintained and disinfections are ordered by the Division of Contagious Diseases.

† With antitoxin furnished free by the Department of Health.

‡ Cases dying within 24 hours after injection.

Turning to the laryngeal cases, we find that while the number of such cases was about the same during 1909 as 1908, more deaths occurred during 1909, the case fatality rising from 10.2 to 14.5.

Fewer cases were intubated during 1909 (140) as compared with 1908 (223), yet the number of deaths was increased, the case fatality rising from 14.3 to 33.6.

TABLE 20.

Diagnosis Laboratory—Specimens Examined and Results of Examination.

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Diphtheria—						
Bacteriological examinations for diagnosis.....	36,155	21,532	8,682	3,938	1,292	711
Showing Klebs-Loeffler bacilli.....	11,369	6,630	2,856	1,082	551	250
Not showing Klebs-Loeffler bacilli.....	24,750	14,875	5,822	2,854	737	461
Indecisive.....	36	27	3	2	4	.....
Later cultures.....	30,136	12,777	13,846	1,820	1,206	487
Other cultures.....	1,392	634	648	38	13	59
Total cultures.....	67,683	34,943	23,176	5,796	2,511	1,257
Tuberculosis Sputum—						
Specimens examined.....	36,031	23,836	8,396	2,848	669	282
Showing tubercle bacilli.....	8,125	5,066	2,142	645	198	74
Showing no tubercle bacilli.....	27,906	18,770	6,254	2,203	471	208
Typhoid—						
Widal reaction:						
Specimens of blood examined.....	8,815	4,497	2,427	1,208	419	264
Showing reaction.....	2,519	1,142	783	369	147	78
Showing no reaction.....	5,754	3,051	1,510	782	247	164
Indecisive.....	542	304	134	57	25	22
Diazo reaction:						
Specimens examined.....	2,099	897	732	314	148	8
Showing diazo reaction.....	680	277	236	100	63	4
Showing no diazo reaction.....	1,400	612	491	208	85	4
Showing doubtful reaction.....	19	8	5	6	.....	.....
Malaria—						
Specimens examined.....	1,802	977	470	231	89	35
Showing malaria plas.....	158	89	37	24	6	2
Showing no malaria plas.....	1,644	888	433	207	83	33
Cerebro-spinal Meningitis—						
Specimens examined.....	31	15	8	4	.....	4
Positive.....	.....	.....	.....	.....	.....	.....
Negative.....	31	15	8	4	.....	4
Glanders—						
Specimens examined.....	78	74	2	.....	2	.....
Specimens examined very suspicious.....	7	7	.....	.....	.....	.....
Specimens examined suspicious.....	37	35	.....	.....	2	.....
Specimens examined negative.....	34	32	2	.....	.....	.....
Pus. (gonococcus)—						
Specimens examined.....	49	27	18	4	.....	.....
Specimens examined showing gonococci.....	11	5	4	2	.....	.....
Specimens examined showing no gonococci.....	35	21	13	1	.....	.....
Specimens examined indecisive.....	3	1	1	1	.....	.....
Miscellaneous—						
*Average number of culture stations.....	338	194	54	45	35	10
Visits to collect specimens.....	37,154	10,102	14,693	5,189	4,622	2,548
Culture tubes prepared.....	116,275	.....	.....	.....	.....	.....
Swabs made.....	131,508	.....	.....	.....	.....	.....
Laboratory preparations made.....	116,588	.....	.....	.....	.....	.....
Widal outfits prepared.....	13,323	.....	.....	.....	.....	.....
Diazo outfits prepared.....	3,488	.....	.....	.....	.....	.....
Malaria outfits prepared.....	6,044	.....	.....	.....	.....	.....
C. S. M. outfits prepared.....	350	.....	.....	.....	.....	.....
Sputum jars prepared.....	63,148	.....	.....	.....	.....	.....

* Average of those in operation on the first of each month.

Notwithstanding the relatively small population more cases were intubated in The Bronx than in any other Borough, with a lower case fatality (20.9). This speaks well for the work of the antitoxin inspectors in that Borough. The highest case fatality occurred in the Borough of Richmond, where 8 out of the 10 cases died.

Only two-thirds as many immunizations were performed during 1909 as during the previous year, and the number of children contracting the disease after such immunization was reduced to 50 per cent.

The total number of visits paid by inspectors to diphtheria cases was increased over 1908, also the total number of injections. The average number of visits per case was the same as 1908 (2.8).

DIAGNOSIS LABORATORY.

(See Table 20.)

Tuberculosis.

The steady increase in the number of specimens of sputum submitted to the Diagnosis Laboratory for examination continued during 1909, 6,000 more specimens being sent in during that year. The number showing tubercle bacilli was about the same both during 1909 and 1908 (8,000), so that the increased number of specimens was not due to any increase in the prevalence of the disease, but entirely to more physicians availing themselves of the services of the laboratory.

Typhoid.

About 8,000 specimens of blood were examined for the presence of the Widal, with a corresponding increase in the number of specimens showing positive reaction. The number of doubtful results showed a decided decrease. A similar increase took place in the number of specimens of urine submitted for examination for the Diazo reaction.

Malaria.

About 200 more specimens of blood were examined for the presence of malarial organisms but the relative increase in the number of positive results was much greater, due to improved methods and greater experience on the part of the examiners for cerebro-spinal meningitis. Although this disease was much less prevalent during 1909, yet almost twice as many specimens of spinal fluid was submitted for examination for the presence of the meningococcus.

Miscellaneous.

Twenty-four additional culture stations were established during 1909 and 8,000 more visits made to collect specimens.

Corresponding to the decreased prevalence of diphtheria, there was a decrease in the number of culture tubes and swabs prepared. Three thousand more Widal outfits were prepared and distributed and there was a moderate increase in the number of the various other outfits distributed.

The number of laboratory preparations made was about the same during 1909 as 1908, 116,000.

SPECIMENS SUBMITTED BY INSPECTORS AND PRIVATE PHYSICIANS.

As shown in Table 21, the percentage of specimens submitted for diagnosis by private physicians was about 47 per cent., as compared with 53 per cent. of specimens submitted by inspectors of the Department of Health.

The inspectors gain their advantage only because of the great number of "later" diphtheria cultures taken and submitted by them.

The relative number of specimens submitted by each was about the same as during 1908; there was, of course, a marked increase in the number of specimens of sputum submitted by each.

TABLE 21.

Diagnosis Laboratory: Specimens Submitted for Examination.

	Number of Specimens Submitted for Diagnosis by			
	Department of Health.		Private Physicians.	
	1908.	1909.	1908.	1909.
Diphtheria	44,528	43,113	29,467	24,570
Tuberculosis	12,689	16,343	17,403	19,688
Typhoid	2,571	2,454	7,239	8,460
Widal reaction	2,182	2,388	5,762	6,427
Diazo reaction	389	66	1,477	2,033
Malaria	408	136	1,197	1,666
Cerebro-spinal meningitis	4	7	13	24
Glanders	245	75	244	3
Pus. (gonococcus) .....	.....	47	.....	2
Total	60,445	62,175	55,563	54,413
Percentage	52.1	53.3	47.9	46.7

Of the total number of specimens of sputum submitted, 19,000 were submitted by physicians, and 16,000 by inspectors.

Four-fifths of the typhoid specimens were submitted by private physicians, while of the malarial specimens only 136 were submitted by inspectors. The marked diminution in the number of specimens of glanders submitted during 1909 is accounted for by the fact that the routine examination for the glanders agglutination reaction were carried out at the Research Laboratory during almost the whole of 1909.

DIVISION OF LABORATORIES.

RESEARCH LABORATORY.

A brief summary of the work accomplished by the Research Laboratory during the past year may be found in the following report:

The bacterial products which it has been customary for the Department of Health to prepare have continued to be produced as in previous years.

The most important of these products, diphtheria antitoxin, has been produced to the extent of 546,000,000 units. This amount combined with what remained at the end of the past year was the stock on hand for 1909. Of this amount 575,000,000 units have been used in the refining process, yielding 388,000,000 units. Of this amount 331,000,000 units have been distributed throughout the city to stations and hospitals to be used in the treatment of cases of diphtheria. The latter quantity expressed is equivalent to approximately 110,000 average doses of antitoxin.

The laboratory has continued its regular production of tetanus antitoxin, 16,000,000 units of which were used for refining and 11,000,000 units for therapeutic purposes. 6,000,000 units have been bottled for distribution. The latter has been used largely for immunizing in order to prevent the development of tetanus, although a very considerable quantity has also been used in cases in which the disease has clearly declared itself, in which cases very successful results have been obtained.

Large amounts of diphtheria and tetanus toxins have been produced (463 and 55 liters, respectively) in order to inject horses to produce antitoxins.

Practically, the usual amounts of tuberculin and mallein have been produced. There has been distributed 1,700 c. c. of tuberculin, which represents approximately 3,700 doses, and 2,800 c. c. of mallein, representing 950 doses.

The first of these substances has been largely used in cattle as well as in man, and the second, of course, in horses suspected for glanders.

Numerous patients have been received for the Pasteur treatment on account of the rather large number of people having been bitten by rabid dogs. 746 new cases have been reported during the year, of which 14 lived in New York, who received treatment free of charge. Of the total number indicated 65 were bitten in the head and 477 at some other point on the body; the remainder were endangered by having had wounds come in contact with the virus. Most of those who lived out of the city received treatment by mail. There were reported

Laboratories.

only two deaths from hydrophobia of these 746 cases. Both of these were bitten about the head in several places and did not begin treatment for three to nine days, respectively, after having received the wounds. One of these cases occurred so shortly after finishing the treatment that there was no time for the immunizing process to become effective, while the other developed the disease before the treatment was finished. The number of animals received for suspected rabies was 248, 97 of which were found to have rabies upon examination.

Division of Laboratories—Research Laboratory; Production of Antitoxic Serums and Diagnostic Toxins.

	1909.	1908.
Units of diphtheria antitoxin produced.....	388,651.125	170,546.250
Units of diphtheria antitoxin bottled for distribution.....	331,144.147	206,048.550
Cubic centimeters of diphtheria toxin produced.....	463.300	120.300
Units of tetanus antitoxin produced.....	11,128.750	1,840.000
Units of tetanus antitoxin bottled for distribution.....	6,399.550	8,945.500
Cubic centimeters of tetanus toxin produced.....	55.238	80.004
Cubic centimeters of mallein produced.....	2.655	9.750
Cubic centimeters of mallein bottled for distribution.....	2.882	5.652
Cubic centimeters of tuberculin produced.....	450	1,000
Cubic centimeters of tuberculin bottled for distribution.....	1,700	1,566
Samples of toxins tested.....	532	292
Samples of antitoxin serum tested.....	1,296	945

Research Laboratory: Bacteriological Examination of Specimens.

	1909.	1908.
Bacteriological examinations of water.....	637	157
Bacteriological examinations of milk.....	10,602	10,630
Bacteriological examinations of feces.....	152	262
Bacteriological examinations of urine.....	12	2

Research Laboratory: Pasteur Treatment.

	1909.	1908.
New patients treated during year.....	744	834
† Living in New York City.....	174	256
† Living outside New York City.....	570	578
Attending laboratory for treatment.....	171	235
Receiving vaccine by mail.....	573	599
Number of injections in patients.....	16,663	18,285
Animals diagnosed for rabies.....	247	303
Cases.....	97	139
Not cases.....	27	46
Doubtful cases.....	123	118

† Free. † Paying.

VACCINE PREPARATION.

During the past year vaccine has been produced in a quantity sufficient to vaccinate 375,000 persons. Until the beginning of the second half of this year vaccine had always been prepared and collected in the Vaccine Stable on the grounds of the Research Laboratory. At the time indicated, however, the Vaccine Stable was transferred to Otisville, where vaccine is now prepared in a temporary structure. A suitable stone building to properly accommodate calves and facilitate the preparation of the vaccine is in the course of construction.

Vaccine Laboratory: Virus Produced, Tested, and Issued.

	1909.	1908.
Production of vaccine virus—		
Gram collected.....	2,695.05	3,016.47
Cubic centimeters of liquid virus prepared	11,752	13,729
Spades charged with humanized virus	1,622	3,585
Experimental testing of virus—		
Primary vaccination	2,535	2,114
Secondary vaccination	47	14
Visits.....	2,805	2,358
Miscellaneous—		
Specimens of virus tested bacteriologically.....	1,812	1,241
Inspections of virus previously sold.....	1,096	1,171
Animals vaccinated	104	119
Animals collected from	103	118
Autopsies on animals	80	119
Guinea Pigs injected	228	233
Other animals experimented upon	229	129
Mailing blocks prepared	71,563	121,074

	To Chief Clerk.	To Hospitals.	To Miscel- laneous.	In Exchange for Old Virus.	Total, 1909.	Total, 1908.
Vaccine Virus Issued—						
Capillary tubes.....	116,714	60	170	6,657	123,601	97,371
Small vials.....	2,907	1,899	98	.....	4,904	4,777
Large vials.....	4,841	2	191	.....	5,034	6,777

Antistreptococcus serum has been prepared to be used in severe cases of scarlet fever and sepsis. In a few cases this serum has been employed with apparently beneficial results.

Besides the preparation of bacterial products the Laboratory has continued to perform the regular examinations of samples of milk and of water as well as to examine the serum of animals suspected to have glanders. The latter test has proved to be of importance as a preliminary diagnostic measure. 605 serum specimens have been examined. Those horses, the serum of which shows above 1/1,000 dilution, are then tested with mallein before the final decision is rendered.

Fifty samples of Croton water, 319 of other waters, and 2 of ice have been examined bacteriologically. Of milk, 10,602 samples have been tested. These comprise:

(1) Regular specimens taken by the inspector from receiving and distributing stations, wagons, etc.

(2) Samples taken from the supplies received at the various hospitals throughout the city.

(3) Samples of certified and guaranteed as well as of inspected and selected milk sent in by farms and collected from their distributing stores.

A number of special specimens have also been obtained from pasteurizing plants in order to test the efficiency of the particular process employed.

Routine examinations are regularly made of any suspected vaginal discharges in Department hospitals so as to avoid any possibility of unsuspected cases causing infection.

Disinfection tests to the number of 24,473 have been collected from the various rooms in which disinfection was carried out in order to determine its efficiency.

The above covers the most important regular routine work of the Laboratory.

CHEMICAL LABORATORY.

The character of the work done by the Chemical Laboratory during the year 1909, has been essentially the same as that of previous years, covering the examination of foods and drugs, including water of the general City supply and private wells, and water from farms, dairies and creameries in and outside of the City.

The Laboratory has examined samples sent by the Chief Clerk's Office of the Department of Health, to determine whether or not they equalled the standard submitted as samples sent in by various other City Departments for the same purpose. The Laboratory has also done a great deal of medical and legal work for the District Attorney, as well as for the Coroner and Police Department. From June 15 to August 2, work for the Police Department was discontinued. The number of analyses made was consequently less, but the number of days spent in Court by the Chemist testifying for the Police Department considerably outnumbers the corresponding amount of days for 1908. The accompanying tables will give a very thorough idea of the amount and increase of work done by this Laboratory during the year 1909. Attention is called to the decided increase which will be noted.

The number of reports forwarded from the Chemical Laboratory is greater by 1,342 than for 1908. The number of half days spent in Court is 564, as compared with 503 for 1908, an increase of 61. For the year 1909, 388 half days is to be credited to the Department of Health, which is 20 days more than for 1908. In 1909, members of this Laboratory spent 176 half days in Court for the Police Department, representing 145 analyses made.

January 4, 1910.

To the Sanitary Superintendent:

SIR—I herewith forward report of the work performed in the Chemical Laboratory for the year 1909:

Total number of specimens analyzed	10,890
Total number of pieces of apparatus tested (Lactometers 131) (Thermometers 72) (Babcock Flasks 144) total.....	347
Total number of reports forwarded and filed.....	11,237
Total number of creams, adulterated	175
Total number of creams, unadulterated	761
Total number of milks, adulterated.....	1,744
Total number of milks, unadulterated	4,405
Total number of milks, unsweetened condensed (loose) adul- terated	16
Total number of milks, unsweetened condensed (loose) un- adulterated	15
Total number of samples of water analyzed (Sanitary analy- ses)	804
Total number of samples of water analyzed, Cellar Waters (Department of Health 8) (Tenement House Department 3), total.....	11
Total number of half days at court.....	570
Number of half days at court for Department of Health.....	393
Number of half days at court for other Departments (Police).	177

DIVISION OF HOSPITALS.

OTISVILLE SANATORIUM.

During the year this Sanatorium has grown appreciably, its activities extending along all lines.

The grounds have been extensively improved during the year, additional roadways having been constructed and seven acres graded and seeded. Under-drains have been laid over this rear. Owing to the nature of the soil, which is of shale substratum, together with much irregularity of surface, having large sloping ground areas, considerable grading becomes necessary before the drainage can be made thoroughly satisfactory.

A new dwelling near the dairy is nearing completion and will be occupied by the dairymen in charge of the cow barn. The buildings of the dairy being somewhat isolated, the fact of having accommodations close at hand will result in having a person near the cow barn at all times, and it will also be possible to thus give the cattle more attention without additional help.

About 500 quarts of milk are produced daily. In addition to this quantity 100 quarts of milk are purchased a day. When the cows go dry they are killed and used for meat.

An ice-house has been erected adjoining the cow barns, giving ample facilities for the storage of ice, to be used for the milk refrigerator.

The section of the property used for antitoxin and vaccine purposes has been extensively improved by reconstruction and adding to the barn and stable building used for housing rabbits and guinea pigs, and the stables used for the antitoxin horses. A small building has been erected for the housing of calves for vaccine purposes.

A considerable amount of work has been done in laying out and providing a water supply for the various buildings mentioned. A small stone pump house has been erected and a receiving well constructed. Approximately 2,500 feet of excavation has been made for laying pipes, 2,000 feet of water pipe has been laid, and a large stone cistern is being constructed to hold approximately 40,000 gallons of water. The latter will be used as a storage reservoir for the buildings in this end of the property and will also supply water to the cow barns. The following improvements have also been made: Isolation stalls for calves, improved ventilation in the Evans barn, provision of a new roof for the carriage barn, reconstruction of the Sayer barn, overhauling of the second Otis barn, and repairs to the Beebe house, Bull house, Otis house and stable.

With the constantly increasing number of patients a proportional increase of supplies naturally follows.

In this connection during the year additional land was placed under cultivation for garden purposes. At the beginning of 1909 approximately seven acres were under production. This has been increased

so that during the year a total of about twenty-two acres has been finally put in use. The land is of a poor quality from an agricultural point of view, but it is being constantly improved and brought to a higher state of cultivation. It has been necessary to lay underdrains of stone and tile over a large proportion of this land.

In addition to supplying flowers and small vegetables of all kinds, the garden has produced the following:

Carrots, bushels.....	1,000
Parsnips, bushels.....	300
Onions, bushels	125
Turnips, bushels.....	400
Mangels, bushels.....	550
Table beets, bushels.....	350
Potatoes, bushels.....	1,100
Cabbage	5,000
Cauliflower	200
Celery, heads.....	5,000
White beans, bushels.....	11
Hay, tons	300
Ensilage, tons.....	150
Oats, bushels.....	368
Rye, bushels.....	58
Pumpkins	300
Hubbard Squash	700
Strawberries, quarts.....	700
Good apples, bushels.....	90
Cider for vinegar, gallons.....	160

Five acres sweet corn, ears sent to Dining Halls, fodder to cow barn. There is on hand at the end of the year, roots and vegetables as follows:

Carrots, bushels.....	400
Table beets, bushels.....	300
Mangels, bushels.....	550
Parsnips, bushels.....	250
Sorted potatoes, bushels.....	350
Seed potatoes, bushels.....	100
Turnips, bushels.....	200
Cabbages	2,000
Celery, heads.....	1,000
Pumpkins	40
Hubbard Squash	100

About 600 shade trees and 400 fruit trees were set out during the spring of 1909.

As a result of a visit by representatives of the State Agricultural Experiment Station some of the soil at the sanatorium was seeded with alfalfa. Inoculating soil was sent from the Experiment Station at Geneva, N. Y.

Hospitals.

The plans for all of the construction at the sanatorium have been made on the premises. All of the work except a few contracts was done by mechanics employed directly at the institution; thus considerable latitude has been obtainable while the buildings have been in progress should any desired change be found necessary.

The most serious problem which has faced this institution during the past year, especially between the months of May and October, has been that of procuring an ample supply of water for use in the various buildings. The original plan for a water supply was found to be entirely inadequate for a season of protracted drought. The most available method and that which seemed the most practicable was the boring of wells and the clearing of the bear swamp, converting it into a storage reservoir. One well 247 feet deep, which was bored during the past year, was kept in constant use and for a time supplied nearly all of the water used on the premises. The supply, however, was not adequate. A second well is partly bored at the present writing, but owing to the subsoil formation being of rock, work has been delayed. A survey was made of the drainage area in what is known as the bear swamp. It was found that there was a watershed of 210 acres and that a reservoir could be constructed having an area of 40 acres. Originally there was constructed a small dam which stored water to operate a water motor. The swamp having contained a large amount of timber and underbrush, this was all cleared away during the fall and the dam raised five feet. An emptying device was constructed and controlled by a gate valve and other piping improvements made. The work of clearing out stumps and refuse over this area is still in progress; but it may be safely said that the construction of this reservoir will result in a large increase in the water supply of this institution.

Report for Year 1910 Showing Cost of Maintenance for Riverside, Kingston Avenue and Willard Parker.

	Riverside.	Kingston Ave.	Willard Parker,
Superintendence.....	\$1,383 69	\$1,883 94	\$2,827 65
Storehouse.....	140 09	106 52	15 18
Wards.....	16,990 44	8,690 22	10,305 79
Pharmacy.....	53 47	69 06	239 35
Morgue.....	373 37	40 73	552 50
Doctors' Kitchen and Dining Room.....	3,401 21	4,985 20	16,080 25
Nurses' Kitchen and Dining Room.....	6,824 30	9,687 17	*.....
Help's Kitchen and Dining Room.....	12,309 08	12,218 36	14,420 29
Patients' Kitchen and Dining Room.....	49,276 74	15,226 77	15,874 38
Housekeeping.....	4,730 69	3,129 75	4,192 10
Laundry.....	2,556 61	1,228 87	8 57
House and Property Operation.....	27,665 09	19,266 28	16,117 09
House and Property Maintenance.....	4,883 06	4,571 66	6,514 66
Steamboat Operation.....	9,510 71	.....	.....
Steamboat Maintenance.....	2,158 08	.....	.....
Laboratory.....	.....	910 00	.....
Stable.....	937 95	8,820 00	11,910 00
Salaries.....	99,040 19	110,852 19	121,053 34
	\$212,235 60	\$191,956 72	\$208,801 15

*In Willard Parker the Doctors' and Nurses' Kitchen and Dining Room are not given separately, but show under "Doctors' Kitchen and Dining Room."

Reception Hospital—General Statement.

	Patients.				Diseases.				Patients.			
	Remaining December 31, 1908.	Admitted.		Total Patients Treated.	Transferred from Other Contagious Diseases.	Total Diseases Treated.	Transferred to Other Contagious Diseases.	Discharged.	Died.	Transferred to		Remaining December 31, 1909.
		New.	Transferred from							Hospital.	Number.	
Diphtheria.....	7	85	Riverside.....	13	105	..	..	34	40	{ Willard Parker... Scarlet Fever... Kingston Avenue 3 }	17 6 3	5
Scarlet fever.....	4	29	Riverside.....	3	36	..	..	12	9	{ Scarlet Fever... Kingston Avenue 2 }	1 2	2
Measles.....	2	751	.....	..	753	..	..	17	29	{ Scarlet Fever... Kingston Avenue 1 }	705	1
Small-pox.....	..	17	.....	..	17	..	..	15	1	.....	..	1
Varicella.....	..	13	.....	..	13	..	..	6	..	Kingston Avenue.....	7	..
Tuberculosis.....	..	73	Otisville.....	33	106	..	..	..	..	Riverside.....	106	..
Cerebro-spinal meningitis.....	..	1	.....	1	1	..	..	..	1	.....	..	..
Diphtheria and scarlet fever.....	..	6	.....	..	6	..	..	1	2	{ Scarlet Fever... Willard Parker... }	2 1	..
Diphtheria and measles.....	1	94	{ Willard Parker... Riverside..... }	50 2	147	..	..	1	33	{ Kingston Avenue... Willard Parker... }	111 1	1
Diphtheria and varicella.....	..	6	Riverside.....	1	7	..	..	1	5	Willard Parker...	1	..
Diphtheria and pertussis.....	1	4	Willard Parker...	2	7	..	..	7	..	.....	..	..
Diphtheria and German measles.....	..	1	.....	1	1	..	..	1	..	.....	..	..
Scarlet fever and measles.....	..	3	Scarlet Fever.....	9	12	..	..	2	2	Kingston Avenue...	7	1
Scarlet fever and varicella.....	2	9	Riverside.....	1	12	..	..	7	..	{ Scarlet Fever... Kingston Avenue 3 }	2 3	..
Scarlet fever and pertussis.....	..	3	Scarlet Fever.....	1	4	..	..	..	1	Kingston Avenue...	3	..
Measles and pertussis.....	..	12	.....	..	12	..	..	..	2	Kingston Avenue...	10	..
Measles and varicella.....	..	2	.....	2	2	..	..	..	..	Kingston Avenue...	2	..
Diphtheria, scarlet fever and measles.....	..	..	Scarlet Fever.....	2	2	..	..	..	..	Kingston Avenue...	2	..
Scarlet fever, measles and varicella.....	..	..	Scarlet Fever.....	1	1	..	..	..	..	Kingston Avenue...	1	..
Total.....	17	1,109	.....	118	1,244	..	..	104	125	.....	1,004	11
For observation.....	9	62	Riverside.....	2	73	..	..	46	8	{ Scarlet Fever... Willard Parker... Kingston Avenue 3 }	9 3 3	4
Accompanying.....	2	46	Riverside.....	2	50	..	..	31	4	{ Kingston Avenue... Kingston Avenue... }	12	3

Willard Parker Hospital—General Statement.

	Patients.					Diseases.				Patients.				December 31, 1909.	Remaining
	New.	Admitted.		Transferred from	Total Patients Treated.	Transferred from other Contagious Diseases.	Total Diseases Treated.	Transferred to other Contagious Diseases.	Discharged.	Died.	Transferred to				
		Hospital.	Num-ber.								Hospital.	Num-ber.			
Diphtheria.	113	1,448	{ Reception	24 {	1,980	..	1,980	..	1,356	472	{ Scarlet Fever....	20 }	72		
			{ Riverside.....	395 }							{ Kingston Ave...	1 }			
Total.....	113	1,448	.....	419	1,980	..	1,980	..	1,356	472	{ Reception	59 }	80	72

Scarlet Fever Hospital—General Statement.

	Patients.				Diseases.				Patients.				Remaining December 31, 1909.
	Admitted.		Total Patients Treated.	Transferred from other Contagious Diseases.	Total Diseases Treated.	Transferred to other Contagious Diseases.	Discharged.	Died.	Transferred to		Number.		
	New.	Transferred from Hospital.											
									Hospital.				
Scarlet fever.....	996	{ Riverside Willard Parker... Reception..... Willard Parker.. Riverside..... Reception.....	{ 1,557 24 21 9 8	..	1,557	..	1,182	165	{ Willard Parker.. Kingston Ave... Reception..... Reception..... Willard Parker.. Reception..... Willard Parker.. Reception.....	2 1 11 2 1 2 1	196		
Diphtheria and scarlet fever.	1	40	{ Riverside..... Reception.....	{ 9 8	..	79	..	55	16	{ Reception..... Willard Parker.. Reception..... Willard Parker.. Reception..... Willard Parker.. Reception.....	2 1 2 1 2 1 1	5	
Total	116	1,036	484	1,636	..	1,636	..	1,237	181	.....	17	201

Hospitals.

Reception Hospital—Service Rendered.

	Patients.	Patient Days.	Average Days per Patient.	Largest Number of Patients at One Time.	Smallest Number of Patients at One Time.	Average Patients per Day.
Diphtheria.....	105	1,341	12.77	7	1	2.95
Scarlet fever.....	30	427	11.86	4	1	1.08
Measles.....	753	1,410	1.87	13	1	2.23
Small-pox.....	17	233	13.70	5	1	.635
Varicella.....	13	100	7.69	3	1	.234
Tuberculosis.....	106	109	1.02	5	1	.0025
Cerebro-spinal meningitis.....	1	1	1.00	1	1	.0025
Diphtheria and scarlet fever.....	6	20	4.83	1	1	.0625
Diphtheria and measles.....	147	238	1.61	3	1	.6325
Diphtheria and varicella.....	7	32	4.57	2	1	.0914
Diphtheria and pertussis.....	7	193	27.57	3	1	.514
Diphtheria and German measles.....	1	12	12.00	1	1	.0425
Scarlet fever and measles.....	12	128	10.66	3	1	.335
Scarlet fever and varicella.....	12	337	28.08	3	1	.795
Scarlet fever and pertussis.....	4	75	18.75	2	1	.116
Measles and pertussis.....	12	20	1.67	4	1	.0187
Measles and varicella.....	2	2	1.00	1	1	.0547
Diphtheria, scarlet fever and measles.....	2	2	1.00	1	1	.0055
Scarlet fever, measles and varicella.....	1	7	7.00	1	1	.0192
Total.....	1,244	4,696	3.69	25	3	10.81
For observation.....	73	782	10.71	9	1	1.88
Accompanying.....	50	475	9.5	8	1	1.41

Willard Parker Hospital—Service Rendered.

	Patients.	Patient Days.	Average Days per patient.	Largest Number of Patients at One Time.	Smallest Number of Patients at One Time.	Average Patients per Day.
Diphtheria.....	1,980	31,566	15.94	125	39	84.42

Scarlet Fever Hospital—Service Rendered.

	Patients.	Patient Days.	Average Days per Patient.	Largest Number of Patients at One Time.	Smallest Number of Patients at One Time.	Average Patients per Day.
Scarlet fever.....	1,557	54,063	34.72	224	45	139.58
Diphtheria and scarlet fever.....	79	2,631	33.30	22	1	7.17
Total.....	1,636	56,694	34.65	246	46	146.75

Hospitals.

Riverside Hospital—Service Rendered.

	Patients.	Patient Days.	Average Days per Patient.	Largest Number of Patients at One Time.	Smallest Number of Patients at One Time.	Average Patients per Day.
Diphtheria.....	451	635	1.40	5	1	1.73
Measles.....	121	402	3.32	4	1	1.10
Tuberculosis.....	1,259	107,438	85.33	322	241	294.35
Diphtheria and measles.....	29	105	3.62	2	1	.25
Scarlet fever.....	453	479	1.05	8	1	1.31
Diphtheria and scarlet fever.....	15	17	1.13	2	1	.04
Diphtheria and varicella.....	1	1	1.00	1	1	.002
Diphtheria and pertussis.....	2	2	2.00	1	1	.005
Scarlet fever and varicella.....	1	1	1.00	1	1	.002
Total.....	2,332	109,080	46.77	323	24	298.84
For observation.....	5	370	74.00	2	1	1.01
Accompanying.....	3	3	1.00	1	1	.008

Kingston Avenue Hospital—Service Rendered.

	Patients.	Patient Days.	Average Days per Patient.	Largest Number of Patients at One Time.	Smallest Number of Patients at One Time.	Average Patients per Day.
Diphtheria.....	627	10,960	17.48	46	16	21.62
Scarlet fever.....	855	28,135	32.90	127	21	70.02
Measles.....	1,789	37,164	20.77	249	28	98.10
Varicella.....	101	1,456	14.41	13	1	3.41
Pertussis.....	1	3	3	1	1	.....
German measles.....	3	33	11	2	1	.07
Mumps.....	1	19	19	1	1	.05
Cerebro-spinal meningitis.....	7	178	25.42	3	1	.21
Diphtheria and scarlet fever.....	34	976	28.70	9	1	2.37
Diphtheria and measles.....	148	2,819	19.04	23	1	7.18
Diphtheria and varicella.....	7	65	9.28	3	1	.17
Diphtheria and pertussis.....	4	17	4.25	1	1	.03
Scarlet fever and measles.....	28	1,076	38.42	22	1	6.07
Scarlet fever and varicella.....	7	281	40.14	3	1	.61
Scarlet fever and pertussis.....	7	186	26.57	3	1	.21
Measles and pertussis.....	17	255	15	5	1	3.87
Measles and varicella.....	3	52	17.33	3	1	.79
Measles, scarlet fever and varicella.....	2	52	26	3	1	.19
Scarlet fever, measles and diphtheria.....	4	173	43.75	2	1	.47
Scarlet fever, varicella and pertussis.....	1	39	39	1	1	.01
Varicella and pertussis.....	1	3	3	1	1	.007
Total.....	3,647	83,944	23.01	381	80	219.52
For observation.....	17	425	25.00	3	1	.43
Accompanying.....	322	6,066	18.83	70	2	14.74

Reception Hospital—Case Fatality Per Cent.—Those Dying within 48 Hours Deducted, by Diseases, Age Periods, and Time Elapsed Previous to Admission.

Days of Disease Elapsed Previous to Admission.	Cases Terminated*—Those Dying Under 48 Hours Deducted.			Deaths—Those Dying Under 48 Hours Deducted.			Case Fatality Per Cent.		
	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.	
Diphtheria—									
Under 2 years.....	1	7	3	11	.....	4	1	5
2-4 years.....	1	6	4	11	.....	2	.....	2
5-14 years.....	4	7	3	14	1	.....	.....	1
Over 15 years.....	.....	6	4	10	.....	.....	.....	.....
Scarlet Fever—									
Under 2 years.....	1	2	.....	3	1	.....	.....	1
2-4 years.....	.....	3	1	4	.....	.....	.....	.....
5-14 years.....	3	1	.....	4	.....	.....	.....	.....
Over 15 years.....	.....	2	.....	2	.....	.....	.....	.....
Measles—									
Under 2 years.....	1	10	8	19	.....	8	7	15
2-4 years.....	.....	2	4	6	.....	.....	1	1
5-14 years.....	1	2	1	4	.....	.....	.....	.....
Over 15 years.....	.....	4	2	6	.....	1	1	2
Small-pox—									
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	2	13	15	.....	.....	.....	.....
Varicella—									
Under 2 years.....	.....	.....	1	1	.....	.....	.....	.....
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	3	.....	3	.....	.....	.....	.....
Over 15 years.....	.....	2	.....	2	.....	.....	.....	.....
Diphtheria and Scarlet Fever—									
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	1	.....	1	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....

* Cases dying or discharged.

* Cases dying or discharged.

Reception Hospital—Case Fatality Per Cent.—Those Dying Within 48 Hours Deducted, by Diseases, Age Periods, and Time Elapsed Previous to Admission—Continued.

Days of Disease Elapsed Previous to Admission.	Cases Terminated *—Those Dying Under 48 Hours Deducted.				Deaths—Those Dying Under 48 Hours Deducted.				Case Fatality Per Cent.			
	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.
Diphtheria and Measles—												
Under 2 years.....	1	4	4	9	1	4	4	9	100.00	100.00	100.00	100.00
2-4 years.....	1	2	1	4	1	1	1	3	100.00	50.00	100.00	75.00
5-14 years.....	.....	2	1	3	.....	2	1	3	.....	100.00	.....	100.00
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria and Varicella—												
Under 2 years.....	.....	1	.....	1	.....	1	.....	1	.....	100.00	.....	100.00
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria and Pertussis—												
Under 2 years.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	1	.....	2	3	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	3	3	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria and German Measles—												
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scarlet Fever and Measles—												
Under 2 years.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	2	2	.....	.....	1	1	.....	.....	.50	.50
5-14 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scarlet Fever and Varicella—												
Under 2 years.....	.....	2	3	5	.....	.....	1	1	.....	.....	33.33	20.00
2-4 years.....	.....	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Willard Parker Hospital—Case Fatality Per Cent.—Those Dying Within 48 Hours Deducted, by Diseases, Age Periods, and Time Elapsed Previous to Admission.

Days of Disease Elapsed Previous to Admission.	Cases Terminated *—Those Dying Under 48 Hours Deducted.				Deaths—Those Dying Under 48 Hours Deducted.				Case Fatality. Per Cent.			
	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.
Diphtheria—												
Under 2 years.....	46	226	112	384	16	95	42	153	34.78	42.03	37.50	39.84
2-4 years.....	68	364	150	582	13	78	31	122	19.11	21.42	20.66	20.96
5-14 years.....	47	324	130	501	4	10	10	33	8.51	5.86	7.69	6.58
Over 15 years.....	15	201	69	285	1	2	5	8	6.67	.099	7.24	2.81
Under Observation—												
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Accompanying—												
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Cases dying or discharged.

Scarlet Fever Hospital—Case Fatality Per Cent.—Those Dying Within 48 Hours Deducted, by Diseases, Age Periods, and Time Elapsed Previous to Admission.

Days of Disease Elapsed Previous to Admission.	Cases Terminated*—Those Dying Under 48 Hours Deducted.				Deaths—Those Dying Under 48 Hours Deducted.				Case Fatality Per Cent.			
	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.
Scarlet Fever—												
Under 2 years.....	9	51	31	91	3	22	10	35	33.33	43.13	32.25	38.46
2-4 years.....	25	188	100	313	4	37	21	62	10.00	19.14	21.00	19.86
5-14 years.....	38	400	224	719	3	17	9	29	8.57	3.69	4.01	4.03
Over 15 years.....	18	134	58	210	1	8	2	11	5.55	5.97	3.44	5.23
Diphtheria and Scarlet Fever—												
Under 2 years.....	.....	3	7	10	.....	1	2	3	.....	33.33	28.57	30.00
2-4 years.....	2	7	17	26	2	.....	3	5	1.00	.....	17.64	19.23
5-14 years.....	4	11	18	33	1	1	2	4	25.00	9.99	11.11	12.12
Over 15.....	1	3	2	6	.....	.....	.....	.....	.....	.....	.....	.....

* Cases dying or discharged.

Days of Disease Elapsed Previous to Admission.	Cases Terminated *—Those Dying Under 48 Hours Deducted.			Deaths—Those Dying Under 48 Hours Deducted.			Case Fatality Per Cent.		
	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.	
Diphtheria—									
Under 2 years.....	.....	3	1	4	.....	1	.....	25.00
2-4 years.....	.....	5	.....	5	.....	3	.....	60.00
5-14 years.....	1	2	1	4	.....	.....	.....	.....
Over 15 years.....	1	6	.....	7	.....	2	.....	28.57
Scarlet Fever—									
Under 2 years.....	.....	1	.....	1	.....	.....	.....	.....
2-4 years.....	.....	3	.....	3	.....	1	.....	33.33
5-14 years.....	1	4	3	8	.....	.....	.....	.....
Over 15 years.....	.....	1	.....	1	.....	.....	.....	.....
Measles—									
Under 2 years.....	.....	5	2	7	.....	2	1	3
2-4 years.....	.....	3	2	5	.....	1	1	2
5-14 years.....	.....	1	2	3	.....	.....	.....	.....
Over 15 years.....	.....	3	1	4	.....	.....	.....	.....
Tuberculosis—									
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	948	948	.....	.....	294	294
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria and Scarlet Fever—									
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	1	.....	.....	1	.....	.....	.....	.....
5-14 years.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria and Measles—									
Under 2 years.....	.....	2	1	3	.....	1	1	2
2-4 years.....	.....	1	1	2	.....	1	1	2
5-14 years.....	.....	3	.....	3	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....
For observation—									
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	.....	.....	.....	.....	.....	.....	.....	.....

* Cases dying or discharged.

Days of Disease Elapsed Previous to Admission.	Cases Terminated*—Those Dying Under 48 Hours Deducted.			Total.	Deaths—Those Dying Under 48 Hours Deducted.			Total.	Case Fatality Per Cent.			
	Under 2 Days.	2-5 Days.	Over 5 Days.		Under 2 Days.	2-5 Days.	Over 5 Days.		Under 2 Days.	2-5 Days.	Over 5 Days.	Total.
Diphtheria—												
Under 2 years.....	10	65	9	84	4	31	3	38	40.00	47.69	33.33	45.23
2-4 years.....	26	145	20	191	8	25	6	39	30.76	17.24	30.00	20.41
5-14 years.....	34	122	24	180	.....	6	.....	12	.....	4.91	25.00	6.66
Over 15 years.....	14	59	8	81	.....	.....	.....	.....	.....	.....	.....	.....
Scarlet Fever—												
Under 2 years.....	10	21	12	43	4	6	4	14	40.00	28.57	33.33	32.55
2-4 years.....	54	106	26	186	7	10	5	22	12.06	9.43	19.33	11.88
5-14 years.....	94	227	80	401	5	10	5	20	5.31	4.40	6.25	4.88
Over 15 years.....	17	56	9	82	.....	4	.....	4	.....	7.14	.....	4.87
Measles—												
Under 2 years.....	77	276	96	449	35	133	34	202	45.45	48.18	35.41	44.98
2-4 years.....	138	320	95	553	17	35	11	63	12.31	10.93	11.57	11.39
5-14 years.....	84	229	86	399	5	5	4	14	5.95	2.18	4.05	3.50
Over 15 years.....	24	193	47	234	1	2	2	5	4.16	1.03	4.25	1.89
Varicella—												
Under 2 years.....	4	15	4	23	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	9	21	7	37	.....	1	.....	1	.....	4.76	.....	2.70
5-14 years.....	7	16	3	26	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	2	9	1	12	.....	.....	.....	.....	.....	.....	.....	.....
Pertussis—												
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
German Measles—												
Under 2 years.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	2	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mumps—												
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....

*Cases dying or discharged.

Kingston Avenue Hospital—Case Fatality, Per Cent.—Those Dying Within 48 Hours Deducted, by Diseases, Age Periods, and Time Elapsed Previous to Admission—Continued.

Days of Disease Elapsed Previous to Admission.	Cases Terminated *—Those Dying Under 48 Hours Deducted.			Deaths—Those Dying Under 48 Hours Deducted.			Case Fatality Per Cent.		
	Under 2 Days.	2-5 Days.	Over 5 Days.	Total.	Under 2 Days.	2-5 Days.	Over 5 Days.	Under 2 Days.	Total.
Cerebro-spinal Meningitis—									
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 15 years.....	2	5	.....	7	2	3	.....	100.00	71.42
Diphtheria and Scarlet Fever—									
Under 2 years.....	.....	.....	1	1	.....	.....	.....	.....	.....
2-4 years.....	3	5	8	13	1	3	.....	.....	.....
5-14 years.....	4	2	.....	2	2	.....	.....	.....	.....
Over 15 years.....	.....	.....	2	.....	.....	.....	.....	.....	.....
Diphtheria and Measles—									
Under 2 years.....	18	20	10	35	5	17	8	100.00	85.71
2-4 years.....	1	30	32	80	10	12	17	55.55	53.12
5-14 years.....	2	6	4	12	.....	2	1	.....	48.75
Over 15 years.....	.....	2	.....	2	.....	.....	.....	.....	25.00
Diphtheria and Varicella—									
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	2	3	5	.....	1	.....	.....	.....
5-14 years.....	.....	1	.....	1	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria and Pertussis—									
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	1	1	.....	.....	.....	.....	.....
5-14 years.....	1	1	.....	2	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria, Scarlet Fever and Varicella—									
Under 2 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2-4 years.....	.....	.....	2	2	.....	.....	.....	.....	.....
5-14 years.....	.....	.....	1	1	.....	.....	.....	.....	.....
Over 15 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scarlet Fever and Measles—									
Under 2 years.....	3	4	2	9	2	1	1	66.66	44.44
2-4 years.....	12	17	10	39	2	5	3	16.66	25.04
5-14 years.....	9	8	6	23	.....	.....	.....	.....	30.00
Over 15 years.....	1	2	.....	3	1	1	.....	100.00	4.34
									66.66

[illegible]

*Cases dying or discharged.

Hospitals.

Number of Cases of Contagious Diseases Received at the Department Hospitals from Quarantine for Treatment.

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
Diphtheria	2	8	9	10	29
Scarlet fever	40	42	18	23	123
Measles	111	258	91	51	511
Varicella	22	19	22	16	79
Cerebro-spinal Meningitis ..	..	6	1	..	7
Total	175	333	141	100	749
Observation	4	1	..	..	5
Accompanying	63	133	44	33	273

Cases of Infection Within Hospitals.

	Reception.	Willard Parker.	Scarlet Fever.	Riverside.	Kingston Avenue.
Cases of measles developing more than fourteen days after admission	41	5	..	22
Cases of scarlet fever developing more than ten days after admission	5	..	..	23

Otisville Sanatorium—General Statement.

	Remaining Dec. 31, 1908.	Admitted.			Total Treated.	Discharged.	Died.	Transferred to		Remaining. Dec. 31, 1909.
		New.	Transferred from					Hospital.	Num-ber.	
			Hospital.	Num-ber.						
Tuberculosis.....	178	779	Riverside..	4	961	612	2	Riverside..	44	303

Otisville Sanatorium—Service Rendered.

	Patients.	Patient Days.	Average Days per Patient.	Largest Number at One Time.	Smallest Number at One Time.	Average Patients per Day.
Tuberculosis	961	85,201	88.66	330	170	239.33

Hospitals.

Otisville Sanatorium—Patients Treated and Condition When Discharged.*

	Total Cases Treated in Year 1909.	Discharged.				Transferred.	Deaths.	Under Treatment Dec. 31, 1909.
		Apparently Cured.	Arrested.	Improved.	Pro-gressive.			
Number—								
Incipient.....	198	11	66	67	9	1	.....	44
Moderately advanced	644	9	127	221	41	17	.....	229
Far advanced.....	119	.....	13	30	18	26	2	30
Percentage—								
Incipient.....	100.00	5.55	33.33	33.84	4.55	.50	.....	22.23
Moderately advanced	100.00	1.38	19.72	34.31	6.36	2.64	.....	35.56
Far advanced.....	100.00	.....	10.92	25.21	15.12	21.85	1.68	25.21

* The classification as to stage of disease, etc., is that adopted by the National Association for the Study and Prevention of Tuberculosis.

Otisville Sanatorium—Duration of Patients' Stay.

	Dis-charged.	Died.	Trans-ferred.	Number.	Per Cent.
Total patients discharged.....	612	2	44	658	100.00
Length of stay.....	.....	.....	.....	.....	.....
Under 1 month.....	105	.....	9	114	17.59
Over 1 month and under 3 months....	203	2	16	221	33.59
Over 3 months and under 6 months....	210	.....	11	221	33.13
Over 6 months.....	94	.....	8	102	15.69

Otisville Sanatorium—Places to Which Patients Discharged.

	Dis-charged.	Died.	Trans-ferred.	Number.	Per Cent.
Total patients discharged.....	612	2	44	658	100.00
Patients discharged to their homes.....	612	.....	.....	612	93.02
Patients discharged on account of death.	.....	2	.....	2	.30
Patients discharged to other sanitaria....	.....	.....	44	44	6.68

Riverside Sanatorium—General Statement.

	Remaining Dec. 31, 1928.	Admitted.				Total Treated.	Dis- charged.	Died.	Transferred to		Re- main- ing Dec. 31, 1929.	
		New.	Transferred from		Hospi- tal.				Num- ber.			
Tuberculosis	253	950	{	Willard Parker	{	56	1,259	654	296	309

Hospitals.

Riverside Sanatorium—Service Rendered.

	Patients.	Patient Days.	Average Days per Patient.	Largest Number at One Time.	Smallest Number at One Time.	Average Patients per Day.
Tuberculosis	1,259	107,438	85.33	322	241	294.35

Riverside Sanatorium—Patients Treated and Condition When Discharged.*

	Total Cases Treated in Year 1909.	Discharged.				Deaths.	Under Treatment, Dec. 31, 1909.
		Apparently Cured.	Arrested.	Improved.	Progressive.		
Number—							
Incipient.....	.....	.....	.....	42	123	74	136
Moderately advanced.....	375	.....	.....	123	366	222	173
Far advanced... ..	884	.....	.....		
Percentage—							
Incipient.....	.....	.....	.....	11.20	32.80	19.73	36.27
Moderately advanced	100.00	.....	.....	13.91	41.40	25.11	19.57
Far advanced.....	100.00	.....	.....		

* The classification as to stage of disease, etc., is that adopted by the National Association for the Study and Prevention of Tuberculosis.

Riverside Sanatorium—Duration of Patients' Stay.

	Discharged.	Died.	Number.	Per Cent.
Total patients discharged	654	296	950	100.00
Length of stay.....	.....	.....	.....	.....
Under 1 month.....	74	22	96	10.10
Over 1 month and under 3 months.....	323	138	461	48.52
Over 3 months and under 6 months.....	156	81	237	24.94
Over 6 months.....	101	55	156	16.42

Riverside Sanatorium—Places to Which Patients Discharged.

	Discharged.	Died.	Number.	Per Cent.
Total patients discharged.....	654	296	950	100.00
Patients discharged to their homes.....	633	.....	633	66.63
Patients discharged to other sanatoria.....	6	.....	6	.63
Patients discharged to work at Otisville.....	15	.....	15	1.58
Patients discharged on account of death.....	.....	296	296	31.16

DIVISION OF FOOD INSPECTION.

The Division of Food Inspection is one of the branches of the Department of Health that supervises and maintains the purity of foods and drugs as well as all articles consumed by the general public.

Its object is to require all foods entering the city to be fresh, sound and wholesome, and to make such inspections as may be necessary to arrive at this end; and to supervise the manufacture and sale of foods and drugs in this city in order to determine that they are properly branded and not adulterated.

The employees of this division consist of thirty-two men doing duty as inspectors, one of whom is designated as Chief who is in charge, also one stenographer and typewriter, one typewriting copyist and one office clerk.

In order to give better opportunity for this division to be in touch with that part of New York's commerce dedicated to the handling of foods, the office of this division has been located at No. 204 Franklin street, a site which is in the heart of the food district.

The territory covered by inspectors embraces the entire City of New York. The latter has been divided into inspection districts and during the year men are detailed to alternate districts to the end that they become familiar with the system as a whole.

These men are required to visit every place in the entire city where food products of any kind, character or description are sold, and make careful inspection of perishable foods in their natural state; also all foods manufactured or in the process of manufacture. They are also required to observe the sanitary conditions under which the foods are manufactured or sold and to obtain samples when instructed to do so.

An inspector's hours of duty practically include all hours of the day and night. Calculations on the daily reports of inspectors are made at the office every twenty-four hours.

As regards the general outline of the work performed by this division it may be mentioned that from every point of the compass food products of all kinds enter this city, requiring a constant and continuous vigilance by the Department of Health. This not only applies to the finished product but also to the bulk food stuffs which are imported for manufacturing purposes. Necessarily a most continuous vigilance of steamship and railroad wharves as well as terminal stations must be constantly kept up. Inspectors are required to carefully look after all perishable foods such as fruits, vegetables and meat, after distribution from the wharves which happens in the early hours of the morning. The remainder of the day is devoted to visiting shops, commission houses, stores of all kinds and licensed venders.

Decided activity is constantly to be exercised, especially during the warm weather when goods that were sound early in the morning be-

come bad toward the middle of the day by being transported over uneven pavements and handling.

Again, all slaughter houses, meat shops and ice houses are carefully inspected to see that the conditions existing in them, not only for the quality of the food which exists there, but to see that the sanitary conditions at these points are such as to guarantee the best product possible for public consumption. A careful observation is made of anything offered for sale or kept in storage.

The New York Mercantile Exchange allows representation on its floor from this division, thus enabling the Department to come in contact with the dairy interests, which privilege is considered very important.

It may be mentioned that the work of this division has been greatly furthered by the aid of the Police Magistrate and Judges of the Courts of Special and General Sessions who have demonstrated their hearty co-operation in the war which is being waged against the adulteration of foods.

FIRE AND MARINE LOSSES.

One of the most important features of this division is the supervision of fire and marine losses. By courtesy of the New York Board of Fire Underwriters, Fire Patrol Reports are sent to this office daily, and thus within twenty-four it is possible to get in touch with every place in the city where fire has occurred involving foods. A fair idea may be formed by observing the accompanying table of the amount of foods which have been condemned after having been damaged by fire, much of which would have undoubtedly escaped the notice of the Department otherwise, on account of the limited number of inspectors covering the city.

ICE CREAM.

All stores where ice cream is manufactured have had their utensils used in the manufacture of said article carefully inspected, and where conditions warranted orders have been served to either purchase new or repair the old vessels.

One of the great achievements of this division during the past year has been the elimination from the market of substitutes for lemon juice.

A complete file has been concluded during the past year of every place in the city where food products of any kind are sold. This file not only shows the class and conditions of the food sold but also the sanitary conditions surrounding these places.

A most decided victory may be indicated as having been obtained by the Health Department as regards the production of "jobbers" who had been in the habit of selling candy containing sulphurous acid. The final decision of the Appellate Division of the Supreme Court of the Second Department affirms the decision of the lower court in favor of the Department of Health. (See Corporation Counsel's Report.) In respect to the sale of prohibited candy it might be added that in the beginning of the year nearly all of the "jobbers" throughout the

entire city for economical reasons were using sulphurous acid as a dryer and bleacher. They contributed ignorance as to its deleterious effects upon the human system and subsequently claimed that the sulphurous acid was in the glucose manufactured by the Corn Products Company. A careful inspection of the latter's plant, and samples obtained from them, showed that this was not true but that it was actually put into the candy by the manufacturers knowingly, most of whom admitted this fact finally.

A correction of the evils existing in bakeshops and confectionery stores has been made. During the summer months the doors of these stores are generally open and dust entering settles upon the cakes and candies. An entire canvass of the city by inspectors has resulted in making all owners of such stores either put a netting over their goods or else put them in glass cases; thus avoiding the possibilities of insects coming in contact with these products, and dust accumulating upon food stuffs of this kind.

The sale of eggs in an improper condition for consumption has been actively prosecuted with the result that during the past year the evil has practically been stamped out entirely. Favorable comment has been the result of this activity, especially by the members of the Mercantile Exchange who compose the wholesale egg dealers of the city.

During 1909 the Department required the elimination of preservatives in chopped meats. Regularly, during the year samples of chopped meats have been obtained from butchers and restaurants. More particularly was this evil the hardest to contend with at the summer resorts. Many arrests were made and the amount of fines increased for violations of the ordinance regarding this offense. The result has been very favorable as regards the stamping out of these harmful products.

This division makes it a point to inspect regularly, cheap restaurants and hotels in order to ascertain the condition of the foods fed to both guests and servants.

FALSE LABELING.

This division has been actively engaged during the past year in enforcing that portion of section 68 of the Sanitary Code regarding the misbranding of foods. Upon numerous occasions where samples have been obtained stating on the labels that the contents were of a certain quality it has been proven that the labels have been false. Where the moral hazard has been good and the people selling goods of this kind have been responsible, they have been notified to call at the office of this division and have been properly instructed. It may be mentioned that the first case is yet to be recorded where a warning has not sufficed.

Where wilful misrepresentations have been made, such as the misbranding of olive oil, syrups and other products, the offenders have been arrested and fined. Second offenses have not been recorded up to date.

DRUG STORES.

The drug stores of New York have been very carefully inspected and samples of products that are frequently used, such as coal tar

products, carbolic acid, and those drugs that would be naturally easiest to adulterate have been under continuous vigilance.

As regards the selling of cocaine it may be said that this drug has been greatly eliminated from the general sale to the public. Many drug stores that have traded in catarrhal powders containing cocaine have had samples on their shelves for long lengths of time and have been trying to dispose of same in order to get rid of old stock, claiming absolute ignorance of the fact that it was in violation of the law. It is possible that this is the truth inasmuch as at one time every drug store in the city kept powders in stock. At the present time, it is very hard to get a sample of these products except in the outlying districts. Thorough tests have been made by false prescriptions to obtain this drug, by inspectors of this division, and it may be recorded that it is doubtful at the present time if this drug could be obtained in any store in the entire city without a bona fide prescription.

There have been many instances where arrests have been made of pedlers who frequent certain parts of this city and have a regular trade. There has been a tendency for every individual and organization interested in the suppression of the use of cocaine to lean upon the Department of Health for help which has been lent freely, with the result that the number of arrests made throughout the city has been large and has resulted in fifty convictions during the past year of dispensors of this drug. The law has dealt heavily with persons found selling this drug without proper licenses to do so.

LARD.

Many grocers and butchers have attempted during the past year to deceive the public by selling a compound for pure lard. The difference in price is five cents per pound in favor of the pure lard. Careful vigilance has been kept over this traffic and many arrests made which has had the result of reducing this abuse to a minimum. Publicity through various trade papers has served as a warning to those in this kind of work. It will be seen from the following table that the condemnations have been very heavy during the past year. This is due in so far as vegetables and fruits are concerned to excessive moisture in southern countries which has resulted in rapid decay.

* COMPARATIVE STATISTICS.

Number of live stock received at the Union Stock Yards, Sixtieth street and North River, during 1909:

Cattle	140,219
Sheep	376,405
Calves	229,392
Hogs	801,180

*Figures represent pounds in relation to condemnations.

Food Inspection.

Number of live stock slaughtered in the City of New York during the year 1909:

Cattle	509,533
Sheep	1,567,099
Calves	399,480
Hogs	734,957
Goats	31
Total.....	3,211,100

MISCELLANEOUS.

Fertilizer manufactured, tons.....	7,293
Fat rendered, pounds.....	1,633,101
Grease rendered, pounds.....	8,390,478
Lard rendered, pounds.....	17,402,896

Inspection and Condemnation of Meat.

NEW YORK.	Year 1909.			Year 1908.		
	Inspection.	Condemnations.	Pounds Condemned.	Inspection.	Condemnations.	Pounds Condemned.
Butcher shops.....	57,142	269	12,711	54,153	615	42,027
Stores.....	21,090	69	2,147	8,594	129	9,621
Packing houses.....	2,823	31	9,895	10,358	45	33,255
Ice houses.....	15,220	180	40,484	18,976	167	29,569
Stands.....	26,927	211	24,609	7,120	497	74,927
Vessels.....	126	4	39,548	439	.....	.....
Markets.....	2,200	468	142,479	1,066	1,054	160,317
Railroad depots.....	546	6	8,447	571	5	21,816
Stock yards.....	2,173	303	219,450	10,821	165	276,102
Slaughter houses.....	14,672	6,017	1,540,029	51,071	6,175	2,230,129
Commission houses.....	10,395	421	56,368	10,953	583	49,417
Fat houses.....	751	.....	.....	2,568	1	14,000
Licensed venders.....	12,284	12	2,665	2,576	19	3,169
Cown sale stables.....	144	.....	.....	2,715	.....	.....
Total.....	166,493	7,991	2,098,139	182,431	9,455	2,940,329

BOROUGH OF MANHATTAN.	Year 1909.			Year 1908.		
	Inspection.	Condemnations.	Pounds Condemned.	Inspection.	Condemnations.	Pounds Condemned.
Butcher shop.....	37,220	155	6,689	34,458	303	22,564
Stores.....	10,467	57	1,785	3,005	28	2,198
Packing houses.....	740	4	4,012	1,390	5	5,192
Ice houses.....	10,345	103	27,086	5,605	76	17,259
Stands.....	15,128	208	23,959	5,133	480	73,052
Vessels.....	119	4	39,548	430	.....	.....
Markets.....	500	458	141,440	631	1,048	160,191
Railroad depots.....	296	5	8,417	24	2	2,800
Stock yards.....	482	302	218,650	1,763	164	276,060
Slaughter houses.....	7,107	2,365	1,067,500	13,788	3,194	1,849,734
Commission houses.....	7,699	250	41,358	3,802	126	32,420
Fat houses.....	107	.....	.....	1,743	1	14,000
Licensed venders.....	3,300	11	2,395	1,071	15	2,827
Cow sale stables.....	.....	.....	.....	.....	.....	.....
Total.....	93,510	3,922	1,582,839	72,923	5,442	2,458,327

Food Inspection.

Inspection and Condemnation of Meat—Continued.

BOROUGH OF BROOKLYN.	Year 1909.			Year 1908.		
	Inspections.	Condemnations.	Pounds Condemned.	Inspections.	Condemnations.	Pounds Condemned.
Butcher shops.....	17,568	76	4,547	15,284	214	12,923
Stores.....	6,760	12	362	1,661	6	420
Packing houses.....	1,908	27	5,793	8,879	39	27,388
Ice houses.....	4,107	60	9,376	11,398	82	10,575
Stands.....	11,509	2	22	1,843	14	1,800
Vessels.....	6	.....	.....	9	.....	.....
Markets.....	1,658	9	1,019	914	5	26
Railroad depots.....	79	.....	.....	191	3	19,016
Stock yards.....	1,689	1	800	9,044	1	12
Slaughter houses.....	7,396	3,555	468,609	36,959	2,821	372,173
Commission houses.....	1,915	169	13,275	6,049	439	14,823
Fat houses.....	637	.....	.....	719	.....	.....
Licensed venders.....	8,771	.....	.....	1,376	1	300
Cow sale stables.....	144	.....	.....	2,715	.....	.....
Total.....	64,147	3,911	503,803	97,041	3,625	455,453

BOROUGH OF THE BRONX.	Year 1909.			Year 1908.		
	Inspections.	Condemnations.	Pounds Condemned.	Inspections.	Condemnations.	Pounds Condemned.
Butcher shops.....	411	3	53	611	22	1,765
Stores.....	28	.....	.....	22	1	100
Packing houses.....	1	.....	.....	1	.....	.....
Ice houses.....	534	2	80	1,761	2	285
Stands.....	.....	.....	.....	.....	.....	.....
Vessels.....	1	.....	.....	.....	.....	.....
Markets.....	31	.....	.....	51	.....	.....
Railroad depots.....	171	1	30	355	.....	.....
Stock yards.....	2	.....	.....	8	.....	.....
Slaughter houses.....	162	97	3,920	320	160	8,225
Commission houses.....	644	1	1,000	906	13	1,669
Fat houses.....	.....	.....	.....	.....	.....	.....
Licensed venders.....	.....	.....	.....	8	.....	42
Cow sale stables.....	.....	.....	.....	.....	.....	.....
Total.....	1,985	104	5,083	4,043	201	12,076

Food Inspection.

Inspection and Condemnation of Meat—Continued.

BOROUGH OF QUEENS.	Year 1907.			Year 1908.		
	Inspec- tions.	Condem- nations.	Pounds Con- demned.	Inspec- tions.	Condem- nations.	Pounds Con- demned.
Butcher shops.....	1,669	34	1,322	2,620	69	4,180
Stores.....	3,806	.....	.....	3,585	91	6,778
Packing houses.....	174	.....	.....	76	1	675
Ice houses.....	234	15	3,942	138	6	1,300
Stands.....	290	1	25	109	3	75
Vessels.....	.....	.....	.....	.....	.....	.....
Markets.....	11	1	20	5	.....	.....
Railroad depots.....	.....	.....	.....	1	.....	.....
Stock yards.....	.....	.....	.....	6	.....	.....
Slaughter houses.....	7	.....	.....	2	.....	.....
Commission houses.....	137	1	735	196	5	505
Fat houses.....	7	.....	.....	106	.....	.....
Licensed venders.....	213	1	270	66	.....	.....
Cow sale stables.....	.....	.....	.....	.....	.....	.....
Total.....	6,548	53	6,314	6,910	175	13,513

BOROUGH OF RICHMOND.	Year 1909.			Year 1908.		
	Inspec- tions.	Condem- nations.	Pounds Con- demned.	Inspec- tions.	Condem- nations.	Pounds Con- demned.
Butcher shops.....	274	1	100	1,180	7	585
Stores.....	29	.....	.....	231	3	125
Packing houses.....	12	.....	.....
Ice houses.....	14	1	150
Stands.....	35	.....	.....
Vessels.....
Markets.....	5	1	100
Railroad depots.....
Stock yards.....
Slaughter houses.....	2	.....	.....
Commission houses.....
Fat houses.....
Licensed venders.....	55	.....	.....
Cow sale stables.....
Total.....	303	1	100	1,534	12	960

Pounds of Meat Condemned and Destroyed—Continued.

	Borough of Brooklyn.						Borough of The Bronx.									
	Beef.	Veal.	Sheep.	Hogs.	Assorted Meats.	Poultry.	Game.	Total.	Beef.	Veal.	Sheep.	Hogs.	Assorted Meats.	Poultry.	Game.	Total.
Butcher shops.....	540	55	50	327	2,816	759	....	4,547	....	40	....	....	....	13	....	53
Stores.....	775	....	10	60	184	108	....	302	....	....	....	....	....	....	....	....
Packing houses.....	1,045	110	....	3,313	1,705	....	....	5,793	....	....	....	....	....	....	....	....
Ice houses.....	....	....	....	2,595	5,415	241	....	9,376	....	....	40	....	....	....	....	....
Stands.....	....	....	....	....	12	10	....	22	....	....	....	....	....	....	....	....
Vessels.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Markets.....	....	....	....	....	260	759	....	1,019	....	....	....	....	....	....	....	....
Railroad depots.....	800	....	....	....	....	....	....	....	....	30	....	....	....	....	....	....
Stock yards.....	65,662	154,361	3,195	....	198,325	47,066	....	800	....	....	....	....	....	....	....	....
Slaughter houses.....	520	....	50	180	8,475	3,922	128	468,669	....	....	....	....	....	3,920	1,000	3,020
Commission houses.....	....	....	....	....	....	....	....	13,275	....	....	....	....	....	....	....	1,000
Fat houses.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Licensed vendors.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cow sale stables.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total.....	69,342	154,526	3,395	6,445	217,192	52,805	128	503,803	....	70	40	....	40	3,933	1,000	5,083

Pounds of Meat Condemned and Destroyed—Continued.

	Borough of Queens.*							Borough of Richmond.								
	Beef.	Veal.	Sheep.	Hogs.	Assorted Meats.	Poultry.	Game.	Total.	Beef.	Veal.	Sheep.	Hogs.	Assorted Meats.	Poultry.	Game.	Total.
Butcher shops.....	343	12	35	232	395	263	42	1,322	100	...	...	...	...	...	...	100
Stores.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Packing houses.....	210	...	...	524	3,268	...	...	3,042	...	...	...	...	...	...	...	...
Ice houses.....	...	...	...	...	25	...	...	25	...	...	...	...	...	...	...	...
Stands.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vessels.....	...	...	...	20	...	...	...	20	...	...	...	...	...	...	...	...
Markets.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Railroad depots.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stock yards.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Slaughter houses.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Commission houses.....	735	...	...	...	...	...	...	735	...	...	...	...	...	...	...	...
Fat houses.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Licensed vendors.....	...	...	...	...	...	...	270	270	...	...	...	...	...	...	...	...
Cow sale stables.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total.....	1,288	12	35	776	3,628	263	312	6,314	100	...	...	...	...	...	...	100

Food Inspection.

Inspection and Condemnation of Fruit, Fish and Other Foods.

	Year 1909.			Year 1908.		
	Inspections.	Condemnations.	Pounds Condemned.	Inspections.	Condemnations.	Pounds Condemned.
CITY OF NEW YORK.						
Commission houses	64,779	1,888	1,166,793	73,587	1,180	1,935,251
Retail stores	60,686	1,052	279,129	100,829	3,256	392,603
Licensed venders	104,257	1,380	219,753	103,959	978	226,925
Vessels and wharves	12,261	1,208	17,847,255	6,733	858	15,168,735
Railroad depots	456	211	384,215	975	761	287,520
Stands	88,357	3,090	139,913	128,440	10,956	218,155
Markets	1,823	493	793,390	5,880	123	25,857
Ice houses	430	37	161,857	508	21	37,491
Pushcarts	137,018	8,936	186,707	164,687	17,538	334,659
Total	470,067	18,265	21,076,012	584,797	35,671	18,626,596
BOROUGH OF MANHATTAN.						
Commission houses	52,713	1,420	881,209	59,365	705	1,611,010
Retail stores	32,125	336	101,204	65,588	1,991	203,578
Licensed venders	96,152	388	152,733	90,199	477	160,635
Vessels and wharves	11,816	1,178	17,782,207	6,542	841	15,156,535
Railroad depots	150	83	314,715	437	41	103,745
Stands	77,049	7,644	95,463	109,275	10,785	203,985
Markets	1,461	341	625,300	1,201	25	11,065
Ice houses	311	6	158,725	324	3	33,550
Pushcarts	116,470	6,863	97,643	133,153	14,314	214,259
Total	388,247	13,259	20,209,199	466,084	29,212	17,698,362
BOROUGH OF BROOKLYN.						
Commission houses	9,254	259	179,395	10,108	503	216,875
Retail stores	16,556	469	141,714	14,941	91	81,178
Licensed venders	5,947	936	57,805	9,541	319	43,365
Vessels and wharves	426	29	45,048	184	17	12,200
Railroad depots	12	2	3,350	60	433	14,850
Stands	7,997	232	29,585	15,301	33	4,090
Markets	156	9	2,115	4,386	.....	.....
Ice houses	1	1	200	85	.....	.....
Pushcarts	18,114	2,034	87,979	39,801	3,190	119,605
Total	58,463	3,971	547,191	80,407	4,806	492,163

Food Inspection.

Inspection and Condemnation of Fruit, Fish and Other Foods—Continued.

	Year 1909.			Year 1908.		
	Inspections.	Condemnations.	Pounds Condemned.	Inspections.	Condemnations.	Pounds Condemned.
BOROUGH OF THE BRONX.						
Commission houses.....	2,551	209	106,189	4,057	81	73,846
Retail stores.....	4,000	195	14,546	4,729	124	39,903
Licensed venders.....	193	12	130	260	2	70
Vessels and wharves.....	15	1	20,000	.....	.....	.....
Railroad depots.....	294	126	66,150	475	287	168,925
Stands.....	1,246	212	11,690	916	130	9,695
Markets.....	199	112	75,935	288	98	14,792
Ice houses.....	118	30	2,932	68	18	3,941
Pushcarts.....	1,859	35	935	133	2	70
Total.....	11,075	932	298,507	11,017	742	311,242
BOROUGH OF QUEENS.						
Commission houses.....	.....	.....	.....	52	1	33,520
Retail stores.....	88	7	485	6,767	346	15,814
Licensed venders.....	4	.....	.....	244	3	175
Vessels and wharves.....	.....	.....	.....	3	.....	.....
Railroad depots.....	.....	.....	.....	2	.....	.....
Stands.....	3	1	25	330	4	85
Markets.....	1	1	40	5	.....	.....
Ice houses.....	.....	.....	.....	31	.....	.....
Pushcarts.....	.....	.....	.....	7	.....	.....
Total.....	96	9	550	7,441	354	49,594
BOROUGH OF RICHMOND.						
Commission houses.....	261	.....	.....	5	.....	.....
Retail stores.....	7,317	45	11,200	8,013	404	52,130
Licensed venders.....	1,961	44	9,065	3,715	147	22,680
Vessels and wharves.....	4	.....	.....	4	.....	.....
Railroad depots.....	.....	.....	.....	.....	.....	.....
Stands.....	2,062	1	150	2,518	4	300
Markets.....	6	.....	.....	.....	.....	.....
Ice houses.....	.....	.....	.....	.....	.....	.....
Pushcarts.....	575	4	150	593	2	125
Total.....	12,186	94	20,565	14,848	557	75,235

Pounds of Fruit, Fish and Other Foods Condemned and Destroyed.

	New York.								Borough of Manhattan.									
	Fruit.	Vegetables.	Canned Goods.	Confectionery.	Groceries.	Eggs.	Fish.	Miscellaneous.	Total.	Fruit.	Vegetables.	Canned Goods.	Confectionery.	Groceries.	Eggs.	Fish.	Miscellaneous.	Total.
Commission houses.....	248,260	437,170	3,790	75	2,050	70,270	393,384	11,704	1,166,793	151,145	258,540	3,790	.....	1,000	66,931	391,309	11,591	881,209
Retail stores.....	35,979	33,085	32,102	11,035	132,511	2,019	8,418	3,980	269,129	5,324	7,315	14,918	9,970	55,916	1,612	4,136	2,013	101,204
Licensed vendors.....	39,342	27,595	432	3	1,430	60	150,701	86	219,753	587	75	432	3	1,430	60	150,016	130	152,733
Vessels and wharves.....	10,910,942	6,402,352	13,499	175	363,365	450	70,320	86,152	17,847,255	10,869,142	6,379,504	13,499	175	363,395	450	70,320	85,752	17,822,207
Railroad depots.....	75,000	308,315	.....	.....	.....	.....	.....	.....	384,215	73,950	240,705	.....	.....	.....	.....	.....	.....	314,715
Stands.....	25,844	51,810	55	.....	.....	32	59,095	65	136,913	12,059	24,286	55	12	.....	32	58,960	65	95,403
Markets.....	38,915	602,000	75	.....	.....	.....	2,400	.....	703,390	32,825	592,420	75	.....	.....	.....	.....	.....	625,300
Ice houses.....	.....	6,999	.....	.....	.....	.....	.....	.....	101,857	.....	6,999	.....	.....	.....	.....	.....	.....	158,725
Pushcarts.....	155,132	30,415	730	10	95	65	215	45	186,707	92,502	4,570	446	10	95	.....	.....	.....	97,643
Total.....	11,530,314	7,969,552	50,683	11,310	493,451	76,028	836,358	102,316	21,075,012	11,237,154	7,514,359	32,215	10,170	422,706	65,085	826,566	90,554	20,209,199

Pounds of Fruit, Fish and Other Foods Condemned and Destroyed—Continued.

	Borough of Brooklyn.							Borough of The Bronx.							Total.			
	Fruit.	Vegetables.	Canned Goods.	Confectionery.	Groceries.	Eggs.	Fish.	Miscellaneous.	Total.	Fruit.	Vegetables.	Canned Goods.	Confectionery.	Groceries.		Eggs.	Fish.	Miscellaneous.
Commission houses.....	86,060	91,560	.....	75	.....	.....	1,500	200	179,395	11,055	87,070	.....	.....	150	7,339	575	.....	106,189
Retail stores.....	27,335	27,300	9,035	920	70,626	82	4,099	1,717	141,714	980	5,215	6,899	45	1,069	125	113	100	14,546
Licensed venders.....	37,005	20,220	.....	.....	.....	.....	480	100	57,865	50	.....	.....	.....	.....	.....	30	50	130
Vessels and wharves.....	41,800	2,848	.....	.....	.....	.....	.....	400	45,048	.....	.....	.....	.....	.....	.....	.....	.....	20,000
Railroad depots.....	1,550	1,800	.....	.....	.....	.....	.....	.....	3,350	400	65,750	.....	.....	.....	.....	60	.....	66,150
Stands.....	9,025	20,485	.....	.....	.....	.....	75	.....	29,585	4,585	7,045	.....	.....	.....	.....	1,895	.....	11,600
Markets.....	450	1,200	.....	.....	.....	.....	465	.....	2,115	5,640	68,400	.....	.....	.....	2,932	.....	.....	75,935
Ice houses.....	.....	.....	.....	.....	.....	200	.....	.....	200	.....	450	.....	.....	.....	.....	.....	.....	935
Pushcarts.....	62,070	25,350	284	.....	.....	65	190	20	87,979	485	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	265,295	199,763	9,919	995	70,626	347	6,369	2,437	547,191	23,195	253,930	6,899	45	1,219	10,396	2,673	150	298,507

Food Inspection.

Pounds of Fruit, Fish and Other Foods Condemned and Destroyed—Continued.

Borough of Queens.										Borough of Richmond.									
	Fruit.	Vegetables.	Canned Goods.	Confectionery.	Groceries.	Eggs.	Fish.	Miscellaneous.	Total.		Fruit.	Vegetables.	Canned Goods.	Confectionery.	Groceries.	Eggs.	Fish.	Miscellaneous.	Total.
Commission houses.....	215	75	...	...	200	...	60	...	550	4,075	10,415	650	100	4,700	200	250	175	20,565	
Retail stores.....	...	...	...	...	...	...	...	...	485	2,150	3,200	650	100	4,700	200	...	...	...	11,200
Licensed vendors.....	100	75	...	...	200	...	20	...	...	1,700	7,190	...	...	...	...	...	50	...	9,065
Vessels and wharves.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	175	...	...
Railroad depots.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stands.....	25	...	...	...	...	...	40	...	25	150	...	...	...	...	...	...	...	...	150
Markets.....	...	...	...	...	...	...	...	...	40	...	...	...	...	...	...	...	...	...	...
Ice houses.....	...	...	...	...	...	...	...	...	...	75	25	...	...	...	...	...	25	...	...
Pushcarts.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total.....	215	75	...	...	200	...	60	...	550	4,075	10,415	650	100	4,700	200	250	175	20,565	

Food Inspection.

Actions on Complaints.

	New York.		Manhattan.		Brooklyn.		The Bronx.		Queens.		Richmond.	
	Meat.	Food.	Meat.	Food.	Meat.	Food.	Meat.	Food.	Meat.	Food.	Meat.	Food.
Complaints pending December 31, 1908.....	...	...	...	...	...	...	...	...	...	...	...	...
Citizens' complaints received.....	323	216	244	168	57	16	3	32	19	...	...	...
Inspectors' complaints filed.....	477	566	329	527	91	2	3	37	54	...	...	...
Total complaints.....	800	782	573	695	148	18	6	69	73	...	...	...
Duplicates.....	1	...	...	...	1	...	...	...	...	...	...	...
No cause for action.....	304	191	227	147	54	12	3	32	20	...	...	...
Complaints referred to other divisions.....	446	559	329	520	63	...	1	30	53	...	...	...
Complaints returned for notice or order.....	46	41	14	28	30	6	2	7	...	...	...	...
Complaints pending at end of year.....	3	...	3	...	...	...	...	...	...	...	...	...
Total complaints disposed of.....	800	782	573	695	148	18	6	69	73	...	...	...

Summary of Food Samples Obtained and Results of Analyses.

Samples Procured.				Number Found Adulterated.							
Man- hattan.	Brook- lyn.	The Bronx.	Queens.	Rich- mond.	New York.	Man- hattan.	Brook- lyn.	The Bronx.	Queens.	Rich- mond.	New York.
Apple Juice.....	1	..	..	..	1	..	..	..	..	..	..
Asparagus.....	1	..	..	..	1	..	..	..	..	..	..
Bacon.....	..	1	..	..	1	..	..	..	..	..	..
Baking Powder.....	1	..	..	..	1	..	..	..	..	..	..
Beer.....	..	1	..	..	1	..	..	..	..	..	..
Beer (Root).....	3	..	..	2	5	..	..	..	..	..	..
Beets.....	..	..	..	1	1	..	..	..	..	..	..
Bologna.....	8	1	..	..	11	..	..	..	..	..	..
Bologna (Wurst).....	1	..	2	..	3	..	..	..	..	..	..
Brandy.....	2	..	2	..	2	..	..	..	..	..	..
Bread.....	2	2	..	..	4	..	..	..	..	..	..
Butter.....	4	4	9	..	17	..	..	..	..	..	..
Butter (Apple).....	..	1	..	..	2	..	..	..	..	..	..
Butter (Peanut).....	..	1	..	1	1	..	..	..	..	..	..
Cake (Mixture).....	1	..	..	..	1	..	..	..	..	..	..
Candy.....	252	238	68	..	592	19	33	6	..	..	58
Canned Goods.....	141	29	12	..	247	..	..	..	..	..	..
Carbolic Acid.....	27	3	..	..	36	..	..	..	..	..	..
Catsup.....	14	..	..	12	26	1	..	..	..	..	1
Celery Comp.....	..	1	..	..	1	..	..	..	..	..	..
Cheese.....	1	1	..	..	4	..	..	..	..	..	..
Chili Sauce.....	2	3	..	1	3	..	..	..	..	..	..
Chocolate (Milk).....	1	..	..	..	1	..	..	..	..	..	..
Chocolate (Paste).....	..	1	..	..	1	..	..	..	..	..	..
Chop Suey.....	1	..	..	..	1	..	..	..	..	..	..
Cider.....	2	..	..	..	2	..	..	..	..	..	..
Cinnamon.....	..	1	..	..	1	..	..	..	..	..	..
Coating.....	1	..	..	..	1	..	..	..	..	..	..
Cocaine.....	3	..	..	..	3	..	..	..	..	..	..
Cocoa.....	2	2	..	..	4	..	..	..	..	..	..
Cocoa (Beans).....	1	..	..	..	1	..	..	..	..	..	..
Coffee.....	2	..	..	..	3	..	..	..	..	..	..
Coloring.....	1	..	..	1	1	..	..	..	..	..	..
Condiments.....	46	..	..	..	46	..	..	..	..	..	..
Cream.....	1	..	..	..	1	..	..	..	..	..	..
Cream (Ice).....	11	..	..	..	11	..	..	..	..	..	..

Food Inspection.

Samples Procured.						Number Found Adulterated.					
Man- hattan.	Brook- lyn.	The Bronx.	Queens.	Rich- mond.	New York.	Man- hattan.	Brook- lyn.	The Bronx.	Queens.	Rich- mond.	New York.
Dextrose.....	1				1						
Drugs.....	55	59	1	13	183	7	17	1			25
Eggs.....	2	1			2						
Egg (Plant).....	1				1						
Eggs (Albumen).....	2				2						
Eggs (Coloring).....	1				1						
Eggs (Liquid).....	3				3						
Eggs (Mixture).....	1				1						
Extracts.....	38	11	9	7	65	5					5
Flavor.....	8	3			3						
Flour.....	15				15	5					5
Flour (Gluten).....	23	6	4		55						
Frankfurter.....	2				2						
Gelatin.....	2				2						
Getränk.....	1				1						
Gin.....	1				1						
Glossine.....	1				1						
Glucose.....	9	7			16						
Grape Juice.....	11	2	8	5	26	2					2
Growdina.....	1				1						
Honey.....	19	3	6	28	56						
Horse Radish.....	2	1		2	5						
Icing.....	2				3						
Jam.....	3			10	20						
Jelly.....	9	1	3	15	28						
Lard.....	38		4	42	42						
Lemonade.....	10	2			12						
Lemon (Juice).....				1	1						
Lime (Juice).....	1				1						
Macaroni (Kernels).....	1				1						
Mapeline.....	1				1						
Marmalade.....	2			2	4						
Meat.....	19				22						
Meat (Chopped).....	274	87	55	12	428	104	13	5	2		14
Meat (Corned Beef).....				1							
Meat (Hamburger Steak).....	12		1	1	13						
Milk (Butter).....	1		1		1						
Milk (Condensed).....	60	6	9	18	101						
Milk (Evaporated).....	15		8		15						

Food Inspection.

Moxie.....	4	1	..	..	..	..	270	33	270	270	2,355	143	63	12	2	220
Mushrooms.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Muttonline.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Olive Oil.....	4	6	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Peaches.....	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Pepper.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pickles.....	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pineapple.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Powder (White).....	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Preservaline.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Preserves.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Preserves (Strawberry).....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Relish.....	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Relish (India).....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sap.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sauce.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sauce (English).....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sauce (Courtenay).....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sauce (Mandolay).....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sauce (Onion).....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sauce (Tomato).....	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sausage (Meat).....	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shortening.....	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Soda Water.....	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Spices (Sour).....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sugar.....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sugar (Maple).....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syrups.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syrups (Astd.).....	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syrups (Fruit).....	16	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syrups (Maple).....	5	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Vinegar.....	8	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whiskey.....	6	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wine.....	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yeast.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total.....	1,258	524	270	33	270	270	270	33	270	270	2,355	143	63	12	2	220

Criminal Actions.

	New York.		Manhattan.		Brooklyn.		The Bronx.		Queens.		Richmond.	
	Meat.	Food.	Meat.	Food.	Meat.	Food.	Meat.	Food.	Meat.	Food.	Meat.	Food.
Cases pending at beginning of year.....	15	*14	..	*12	8	2	..	..	4	..	3	..
New arrests made.....	209	268	166	190	25	63	7	13	11	..	..	2
Total.....	224	282	166	202	33	65	7	13	15	..	3	2
Convicted and sent to prison.....	1	16	1	13	..	2	..	..	..	..	..	1
Discharged.....	20	37	12	27	6	10	..	..	2	..	..	..
Number fined.....	164	172	130	148	20	16	7	7	7	..	..	1
Sentence suspended.....	17	9	9	6	2	6	..	1	3	..	3	..
Cases pending at end of year.....	22	48	14	12	5	31	..	5	3	..	..	..
Total.....	224	282	166	202	33	65	7	13	15	..	3	2
Amount of fines imposed.....	\$2,808.50	\$2,804.25	\$1,753.50	\$2,063.25	\$520.00	\$690.00	\$140.00	\$131.00	\$395.00	..	..	\$0.10

* Three cases disposed of in August, 1908, were not recorded until first quarter of 1909. Disposition: 2 fined, 1 sentence suspended; amount of fines \$10.00.

DIVISION OF CHILD HYGIENE.

The end of the year 1909 marks the completion of the first full year's work performed by the Division of Child Hygiene. Since its establishment on August 26, 1908, its scope has been gradually broadened until on March 1, 1909, it completely included those functions of the Department of Health which relate to the preservation of health and the prevention of disease among children from birth to puberty, with the exception of the actual control of the exanthemata in homes and hospitals.

The division consists of a chief, who is responsible to the Sanitary Superintendent. The staff of the division also includes 160 medical inspectors, 142 nurses, and 17 clerks. The nursing staff is directed by a superintendent of nurses, who is responsible to the chief of the division. In each borough one or more, supervising nurses are in charge of the work of the nurses detailed to that borough.

The functions of the division are educational and administrative. Its educational functions consist, in educating parents, particularly mothers, in the care of infants and children, and in the need of timely prevention and treatment of physical defects.

Its administrative functions include:

1. The enforcement of such laws of the State, such provisions of the Sanitary Code, and such other regulations of the Board of Health as bear directly on the protection of the health of the children of the community.

2. The supervision and regulation of the practice of midwives in the City of New York.

3. The regulation of the conditions under which children are boarded out, by issuing permits, and of the supervision of women engaged in the care of children.

4. The supervision of institutions harboring children, and of day nurseries.

5. The issuance of employment certificates to children who have complied with the provisions of the Child Labor Law, for the purpose of preventing the employment in factories or in mercantile establishments of children who have not reached the age of fourteen, or who are physically unfit to be so employed.

6. The medical inspection of school children to detect the presence of contagious diseases, and the examination of the children to determine the presence of physical defects.

SUPERVISION OF MIDWIVES.

There are at present 3,131 midwives holding permits to practice midwifery. These permits are issued by the Department of Health after written application has been made by the midwives, and the

Child Hygiene.

rules and regulations of the department pertaining thereto have been complied with.

APPLICATION TO PRACTICE MIDWIFERY.

To the Board of Health of the Department of Health of the City of New York:

The undersigned hereby applies for a permit to practice midwifery in the City of New York, and makes the following statement in accordance with the law, rules and regulations of the Board of Health of the Department of Health of the City of New York:

(This application must be made in the handwriting of the applicant. Write legibly and with ink. Vouchers on other side must be filled by two registered physicians and one layman, preferably a clergyman, priest or rabbi.)

Name.....Age

Address

Married—Single—Widow

If married or widow, give maiden name.....

Give all names under which you have practiced midwifery.....

.....

State your general education.

(Give name of every school that you have attended, together with the length of time you were in attendance.)

.....

.....

.....

Training and education in midwifery.

(Give name of school, college or hospital in which you received your training. If trained by private physician, give name of physician and number of cases conducted under his supervision.)

.....

.....

.....

Have you ever been arrested on a criminal charge?.....

Signed.....

Date.....

No.....

Application for Permit to Practice Midwifery.

Name

Address

Permit No.....

Vouchers of Character and Experience.

I, I have known.....
for.....years. She is of good character and habits, and has

Child Hygiene.

attended.....cases of confinement under my supervision.
I consider her competent to attend women in normal labor.

M. D.,

Address

2. I have known.....
for.....years. She is of good character and habits, and has
attended.....cases of confinement under my supervision.
I consider her competent to attend women in normal labor.

M. D.,

Address

3. I have known.....
for.....years. She is of good character and habits.

Address

Investigation by the Department of Health.

Name

Address

Character of house.....

Number of rooms.....

Condition of home.....

Personal habits.....

Report from District Attorney.

.....

Report from County Medical Society.

.....

Report from Coroner.

.....

Accompanying this the midwife is given a copy of the department's regulations for midwives.

RULES FOR MIDWIVES.

1. No person other than a duly authorized physician shall engage in the practice of midwifery without a permit from the Board of Health. No permit will be granted unless an application, made on the printed blank form issued by the Board, has been filed with the Department of Health.

2. This application must be certified to by two regularly licensed and registered physicians, and by one reputable and responsible layman (preferably a clergyman, priest or rabbi).

3. The applicant must be twenty-one years of age or over, and of moral character. She must be able to read and write. She must be

clean and constantly show evidences, in general appearance, of habits of cleanliness. She must have attended, under the instruction of a licensed and registered physician, at least twenty cases of labor and have had the care of at least twenty mothers and new-born infants during the lying-in period (10 days).

4. The Board of Health may issue a permit to practice midwifery, within thirty days after an application for such permit has been filed, provided the applicant is considered competent to care for women in normal labor.

5. This permit will allow the holder to act as a midwife for one year from the date of issuance and must be renewed at the end of that time. The Board of Health may at any time revoke this permit.

6. No permit will be granted to an applicant who has been convicted of criminal practice, and any such conviction will be sufficient cause for the revocation of a permit.

7. Before a permit is given to an applicant she must appear in person at the Department of Health (Fifty-sixth street and Sixth avenue) and register her name and address. She will also receive and receipt for a copy of the rules and regulations governing the practice of midwifery which have been adopted by the Board of Health. These rules and regulations must be explicitly followed.

8. Any midwife changing her name or address must at once report such changes to the Department of Health.

9. A midwife can attend only cases of labor in which there is an uncomplicated vertex (head) presentation. In all other cases a physician must be called.

10. The home of a midwife, her equipment, record of cases and registry of births shall at all times be open to inspection by the authorized officers, inspectors and agents of the Department of Health.

11. If during pregnancy any of the following conditions develop, or are suspected, a midwife shall not engage to attend the case, but must refer it to a physician:

- a. A contracted pelvis and other deformity that will interfere with labor.
- b. Bleeding from the uterus.
- c. Swelling of the face and hands.
- d. Excessive vomiting.
- e. Persistent headache.
- f. Dimness of vision.
- g. Convulsions.

12. If, during labor, any of the following conditions exist or develop, a physician must be summoned:

- a. Presenting part is other than an uncomplicated vertex (head).
- b. Convulsions.
- c. Excessive bleeding.
- d. Prolapse of the cord.
- e. A swelling or tumor that obstructs the birth of the child.
- f. Signs of exhaustion or collapse.

Child Hygiene.

13. Under no circumstances shall a midwife introduce her hand into the vagina or uterus to remove either the placenta or membranes. If, after an hour from the birth of the child (the mother being in otherwise good condition), the afterbirth (placenta and membranes) are not expelled or cannot be expressed by manipulation of the uterus through the abdominal walls, a physician must be called to extract them.

14. If, after the birth of the child, the mother develops convulsions or has excessive bleeding or has been lacerated, a physician must be called in attendance.

15. In her attendance on a case of labor, a midwife must be scrupulously clean in every way. She should wear a clean dress of washable material and over this a clean washable apron. (Note: The sleeves of the dress should be such that they can be rolled up above the elbow.)

16. She shall take to each case the following equipment:

Nail brush.

Wooden or bone nail cleaner.

Jar of green or castile soap.

Tube of vaseline.

Clinical thermometer.

Agate or glass douche reservoir.

Two rounded vaginal douche nozzles.

Two rectal nozzles, large and small.

One soft rubber catheter.

Blunt scissors for cutting cord.

Either: Lysol, carbolic acid, bichlor. of mercury tablets.

Boric acid powder.

One per cent. solution of nitrate of silver.

Medicine dropper.

Narrow tape or soft twine for tying cord.

Absorbent cotton (preferably in one-quarter pound packages).

No other instruments are to be used, owned or possessed by a midwife.

17. This equipment should be carried either in a metal case that can be easily boiled or in a bag fitted with an inner lining of washable material that can be easily removed and washed and boiled.

18. At every case before using the nail brush, nail cleaner, douche reservoir and tubing, vaginal nozzle, catheter, scissors and tape or twine, they must be boiled for five minutes; when the labor is terminated, the douche reservoir and tubing, vaginal nozzles, catheter, scissors, nail brush, nail cleaner must be washed with soap and boiled before replacing them in the bag or case.

19. Before examining a woman in labor the midwife must roll her dress sleeves above the elbow and scrub the hands and forearms in warm water with the nail brush and castile or green soap for at least five minutes; during this washing the skin under and around the nails must be cleaned with the nail cleaner.

20. The woman's external genitals, skin over the lower part of the abdomen and the inner side of the thighs must then be washed with

soap and water and afterward sponged with absorbent cotton soaked in either:

Sol. of lysol two per cent.

Sol. of carbolic two per cent.

Sol. of bichloride of mercury 1-5,000.

Note: To make a 2 per cent. solution, take 3 teaspoonfuls of either lysol or carbolic acid and add 1 pint of boiling water. Directions for bichloride solution are found on bottle containing tablets.

A pad of cotton wet with the solution should be left over the vulva. No vaginal douche shall be given before labor.

21. The hands of the midwife must then be scrubbed with the nail brush for five minutes in either the lysol, carbolic or bichloride of mercury solution before making an internal examination. Before every subsequent internal examination or before passing the catheter, the midwife must wash and scrub her hands with soap and warm water and afterward in the antiseptic solution and the woman's external genitals must be washed with the antiseptic solution. As few vaginal examinations as possible should be made.

22. As soon as the child is born, and if possible before the expulsion of the afterbirth, the eyes should be washed with boric acid solution. The eyelids must then be separated and one or two drops of a (1 per cent.) one per cent. solution of silver nitrate dropped in the eye and the lids brought together. The silver nitrate solution will be furnished by Department of Health.

23. Should the child not breathe after birth the fact must be reported at once by telephone or messenger to the Department of Health, when an inspector will visit the case and issue a still-birth certificate.

24. In caring for a woman after labor and throughout the lying-in period the midwife must exercise the same care in washing her hands when dressing or catheterizing the patient as is called for in Rule No. 21.

25. If, during the lying-in period, any of the following conditions develop, a physician must be summoned:

- a. Convulsions.
- b. Excessive bleeding.
- c. Foul smelling discharge (lochia).
- d. Persistent rise of temperature to 101 degrees F. for 24 hours.
- e. Swelling and redness of the breasts.
- f. Severe chill (rigor) with rise of temperature.
- g. Inability to nurse the child.

26. Every child should be thoroughly examined after birth, and if the child has or develops any of the following conditions a physician must be summoned:

- a. Deformities or malformations or injuries.
- b. Inability to suckle or nurse.
- c. Inflammation around or discharge from the navel.
- d. Swelling and redness of the eyelids with a discharge of matter from the eyes.
- e. Bleeding from the mouth, navel or bowels.

27. Within ten days of the birth of a child a midwife must send a report of the birth to the Department of Health on one of the blanks issued for that purpose. She must also keep on the stubs of her birth certificate book a record of every birth she attends.

28. In every case after labor the temperature must be taken morning and night for five days (preferably by the mouth). If, during this time or at any later period of the lying-in the temperature reaches or exceeds 101 degrees F., and continues at this for twenty-four hours, the case must be reported to the Department of Health. The midwife must not go from such a case to other cases that are free from fever or to a woman in labor, until she has made an entire change of clothing, thoroughly washed her arms, hands, face and hair with soap and warm water, and washed and boiled her instruments.

When the rules and regulations of the department have been complied with a permit is issued.

Constant and repeated inspections are made to determine infractions of the regulations. Each birth certificate returned by a midwife is compared with this record, and a daily list of all unregistered midwives has been sent to this division.

Women applying for permits to wet-nurse are required to state the name and address of the midwife who attended them in their last confinement, and the nurses of this division report all unregistered cases observed. In this way information regarding hundreds of midwives hitherto unregistered has been obtained.

In connection with the nurses' visits to homes it was deemed advisable to include a comprehensive plan of investigation and control of the practice of midwifery. The name and address of each baby whose birth was reported by a midwife during the period from April 15 to September 1, with the name and address of the midwife, was noted on a special history card. Each case was visited and a careful inquiry was made into all the conditions present at the time of confinement, such as abnormal delivery, lack of asepsis, septicæmia or other diseases of the mother. The presence of any symptoms of ophthalmia neonatorum was noted, and a full report of the case made to the chief of the division. Ophthalmologists were sent to all reported cases of ophthalmia, smears were prepared to confirm the clinical diagnosis, and investigations made as to the use of silver nitrate solution in the eyes at the time of birth. During this period the 18,165 births reported by midwives were visited, and 22 cases of ophthalmia neonatorum were discovered. The enforced use of a 1 per cent. solution of silver nitrate was the result of this inquiry. This solution, in one dram vials, is dispensed free of charge by the department, and its use for prophylactic purposes is obligatory.

Every reported death of a puerperal septicæmia is investigated by this division. Of 84 deaths reported during the year, it was found that 22 occurred in women attended by midwives, 60 in women attended by physicians; two women had no attendants.

The permits issued to midwives expire in one year from the time of issue. They are renewed only upon a new application and reinves-

tigation. This work at present is only in the early stages of its development. Since March first, 9,810 inspections and 2,883 reinspections of midwives have been made. It has been very difficult to obtain legal evidence in cases of malpractice, but the moral effect of constant supervision has been of great value as a deterrent influence. During the year 36 applications have been denied, and 33 revoked. Many midwives have been summoned to appear before the Chief of the Division for slight infractions of the rules, and warned that a repetition of the offense would lead to the revocation of their permits. 122,976 births were reported in the city during the year 1909. When one considers that of this number 49,615 were reported by midwives, the importance of the proper safeguarding of this practice may be readily appreciated. To make it still more effective, the question of a required preliminary education in midwives must be met with in the near future.

THE EDUCATION OF MOTHERS IN THE CARE OF BABIES.

On invitation of the Commissioner of Health, a second annual convention of the care of babies was held at the Department of Health on April 5, 1909. Sixty-eight agencies, whose work related to child care, were represented. The co-operation of various institutions was more effective than ever before, and during the summer fourteen (14) classes, assigned from the Association for Improving the Condition of the Poor, the Delineator, the New York Milk Committee, St. George's Deaconess' Home, and Greenwich House Settlement, were detailed to different districts of the city, under the supervision of this division. In order to render the work more purely preventive, it was instituted on April 15, two and half months earlier than in any previous year. This year, for the first time, with the co-operation of the City Superintendent of Schools and the authorities of the parochial and industrial schools, lectures were given by the inspectors of this division, in each school, on the subject of the care of babies.

Realizing that many babies were often left entirely in the care of the older children of the family, it was judged proper to formulate a method by which these so-called "Little Mothers" might receive adequate and practical instruction in this subject. All girls over 12 years of age in the schools were required to attend the lectures, which were given during the months of May and June. The points covered were those relating to elementary infant hygiene and feeding. These subjects were brought out in clear and simple language. The interest and eagerness for information aroused in the girls who attended the lectures was one of the most encouraging features of the year's campaign.

In several schools, under the leadership of the inspector and nurses, there were formed clubs of girls, known as "Little Mothers' League," which contributed much toward maintaining the interest for their work. These leagues have regular meetings during the summer. Each child is given a badge and is made to understand that its possession carries with it the responsibility of aiding in the saving of babies' lives. Considering that these children are often forced to assume the care of babies, at an age when they have no adequate conception of proper

infant care, it can readily be seen that their education in this direction is an essential feature in the reduction of infant mortality.

CLINICS.

Fifty-four (54) educational centers were established throughout the city by the division of child hygiene. An inspector and nurse were assigned to each center, and clinics for babies and mothers were held once or twice weekly. In this connection the co-operation of the agencies of the conference was of much value, for they generally offered the use of their offices and stations for this purpose. Altogether 357 clinics were held.

An inspector was assigned to duty on each recreation pier of the city, for the purpose of offering advice to mothers and treating sick babies. Eight hundred and fifty-six (856) sick babies were treated at the piers. Each center was provided with a full set of utensils, to show the proper method of milk preparation and albumen and barley water; and a scale for weighing the babies. It has been the aim of this division to make these clinics as practically helpful as possible, therefore no didactic lectures were given during 1909, but individual advice was given to each mother.

Home Visits to Mothers.

Daily nurses received cards filled out with the name and address of an infant whose birth had been recorded by a midwife on the preceding day. The nurses were instructed to visit not only the newly born, but to canvass each house visited, and instruct every mother regarding the necessary care of an infant under two years of age.

Actual demonstration of methods were made whenever necessary, and revisits in all instances where it was evident that the instructions given were not thoroughly understood or carelessly disregarded.

Posters and pamphlets regarding care of babies were given to each mother visited. These were compiled under direction of the conference, and were also distributed under other agencies interested in this work.

During the visits as practiced by the nurses for the past years, detailed instructions and suggestions relative to the hygiene and sanitation of the home were given in each instance, and circulars regarding the care of the head and scalp were distributed; particular care being given in advising and demonstrating the proper preservation of the milk used in infant feeding, and printed slips containing directions for proper modifications of milk for indicated ages were left with the mother whenever there was any doubt as to the proper methods of performing same.

During the period covered by the work of this subdivision (April 15 to September 1), the nurses visited 57,059 mothers, and made 50,343 revisits. As it has been the effort of the Division to make this work purely educational and preventive, sick babies were cared for only in cases of emergency. Owing to the co-operation of other agencies of this city, cases of sickness or destitution were referred to them for aid or relief. Infants actually ill were cared for by inspectors of this

division, the nurses in such instances working under their direction; 836 sick babies were treated, and 1,924 visits made to them; 4,896 were referred to other agencies for care or aid.

The generosity of one of our citizens, who refused to allow his name to be used, enabled this division to freely distribute in all needy instances, books each containing thirty coupons, each coupon entitling the person presenting it at any wagon of the American Ice Company, to ten pounds of ice. The use of this ice in the preservation of milk in the homes of needy and deserving people, was of inestimable benefit.

The record of the kind of feeding used in the cases visited is valuable in indicating the need of more continuous observation; 35,591 infants were breast fed; 1,662 cases used pasteurized milk; milk boiled at home, 2,306; condensed milk, 1,124; raw milk, 664; mixed feeding, that is, breast and bottle, 6,958; proprietary foods, 669, and bottle fed, 8,805.

It is the custom of most mothers to nurse their infants during the first few weeks of life. That this beneficent function is not continued is due to either ignorance, neglect or economic conditions, which makes it necessary for the mother to take her place as a wage earner at as early a date after confinement as possible. Continued oversight and supervision could practically eliminate the first two factors. The third is more difficult of adjustment, but even that might be remedied to a great extent, if a proper appreciation of the vital importance of breast feeding at this critical period be instilled into the mother's mind.

The death of infants from diarrhoeal diseases has been, and is, one of the greatest contributing causes to the high general mortality rate of this city. Even with the decline in the death rate of 60 per cent. in the past twenty years, from the gastro intestinal diseases in children under two years of age, the rate still remains abnormally high.

Nursery, Midwifery and Institutional Work.

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Midwives—						
Inspections.....	981	666	215	73	27	.....
Reinspections.....	2,883	1,362	1,272	88	135	26
Foundlings—						
Inspections.....	3,586	1,709	1,110	473	288	6
Reinspections.....	12,899	4,327	6,290	1,407	797	78
Institutions—						
Inspections.....	10	1	8	.....	1	.....
Reinspections.....	678	300	263	49	54	12
Day Nurseries—						
Inspections.....	19	14	5	.....	.....	.....
Reinspections.....	710	535	155	4	2	14
Still Birth—						
Investigations.....	428	205	98	28	6	1
Special Inspection.....	500	500	.....	.....	.....	.....

Child Hygiene.

Deaths from Diarrhoeal Diseases of Infants Under Two Years of Age, With Rates per 1,000 Living at Those Ages.

YEAR	Deaths, Diarrhoeal Diseases Under Two Years.	Rate Per 1,000 Under Two Years.	Lives Saved on Basis of 1902 Death Rate.	Lives Lost on Basis of 1902 Death Rate.
1902.....	4,938	28.2	.....	.....
1903.....	4,440	24.3	705	.....
1904.....	5,047	30.3	.....	302
1905.....	5,877	30.5	.....	442
1906.....	5,783	29.1	.....	178
1907.....	0,349	31.0	.....	574
1908.....	5,977	28.3	.....	21
1909.....	5,120	23.5	1,025	.....

It has been the habit of previous years to confine the work of combating infant mortality to the summer months. By the time the work was fully organized each year, the high summer mortality from diarrhoeal diseases had already commenced. The experiment of beginning the work before the period when the disease is generally manifested was instituted for the first time this year. The whole effort has been to prevent disease among infants in this city, rather than to treat cases of illness after disease has once made itself manifest. During the months of June, July, August and September of this year 3,383 babies under two years of age died from diarrhoeal diseases. During the same period of 1908, 4,180 infants died from the same cause, which indicates a direct reduction of 20 per cent., or an actual saving of 797 lives. That work of the Division, together with that of the allied agencies, appreciably influenced this result may be justly claimed. The meteorological conditions existing during the summer of 1909, in comparison with those existing during previous summers, do not bear out the time-honored idea that heat and humidity play any considerable part in the prevalence of these diseases. Their relation at best is indirect in its influence.

The solution of the problem of this phase of infant mortality is undoubtedly to be found in the education of the mothers. In order that this may be effective, it has been found that imperative, inclusive and continuous effort on the part of the Department is necessary.

As in past years, children sent to the country, or given other short vacation trips by various charitable organizations, were examined by inspectors of this Division. During the year 32,535 children were so examined, for the purpose of discovering cases of contagious diseases.

BOARDING OF CHILDREN.

By localizing, on maps, the greatest centres of infant mortality in New York, the theory that 50 per cent. of foundling babies harbored in institutions die during their first year is graphically illustrated. The work of the past year goes to show that in institutions, notwithstanding the most enlightened methods and care which may be exercised, the mortality rate is excessive and out of all proportion to that in home

Child Hygiene.

Summer Corps—General Work.

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
First visits to first babies.....	13,306	7,963	3,514	1,254	341	324
First visits to other babies.....	43,663	25,089	13,374	3,278	1,156	766
Total first visits.	57,059	33,052	16,888	4,532	1,497	1,090
Kept under observation.....	43,598	29,746	9,729	2,371	1,284	468
Revisits not needed.....	13,461	3,306	7,159	2,161	213	622
Total first visits.....	57,059	33,052	16,888	4,532	1,497	1,090
Not Found.....	7,245	4,729	1,799	531	134	52
Revisits.....	43,098	24,985	12,874	3,378	712	1,149
Total visits.....	107,402	62,766	31,561	8,441	2,343	2,291
Cases terminated previously kept } under observation.....	15,297	6,675	6,778	1,075	428	341
Cases referred to headquarters for } care or investigation.....	924	478	261	132	16	37
Sick babies.....	283	64	137	55	10	17
Foundling infants boarded out.....	439	278	96	51	2	12
Midwives.....	184	130	19	25	3	7
Ophthalmia Neonatorum.....	18	6	9	1	1	1
Attended at birth by midwife.....	17	6	8	1	1	1
Cases referred to other agencies for } aid or treatment.....	4,806	3,974	695	118	99	10
Methods of feeding found—						
Milk: Breast.....	35,591	20,017	11,215	2,633	1,074	652
Pasteurized.....	1,662	1,139	331	166	15	11
Boiled at home.....	2,306	1,506	534	197	47	22
Condensed.....	1,124	405	527	93	63	36
Raw.....	664	342	231	67	8	16
Mixed.....	6,958	3,620	2,337	808	125	68
(Properly prepared).....	5,866	3,228	1,558	906	98	76
(Properly cared for).....	5,774	3,255	1,579	781	94	65
Proprietary food.....	669	298	267	64	18	22
Table food.....	8,085	5,725	1,446	504	147	263
Sick babies visited by Inspectors.....	836	317	289	204	15	11
Visits to sick babies.....	1,924	621	912	339	19	33
Cases of sore eyes visited and found } not to be ophthalmia neonatorum.....	69	36	28	2	2	1
Cases of ophthalmia neonatorum re- } ported by postal and investigated.....	12	10	2	.....	.....	.....
Attended at birth by midwife.....	7	7	.....	.....	.....	.....
Attended at birth by physician.....	5	3	2	.....	.....	.....
Number examined for other charit- } able organizations.....	52,535	28,307	4,226	2	.....	.....
Cases of puerperal septicaemia.....	84	46	33	3	2	.....
Attended by midwife.....	22	14	7	1	.....	.....
Attended by physician.....	60	32	25	2	1	.....
No attendance.....	2	.....	1	.....	1	.....
Feeding investigation for Research } Laboratory.....	947	947	.....	.....	.....	.....
Number of lecturers.....	60	38	20	2	.....	.....
Number of lecture centres.....	54	36	17	1	.....	.....
Lectures delivered.....	357	195	154	8	.....	.....
For New York milk committee.....	154	32	122	.....	.....	.....
For charity organization society.....	83	75	.....	8	.....	.....
At recreation centres.....	82	56	26	.....	.....	.....
For other agencies.....	38	32	6	.....	.....	.....
Visits to recreation piers by inspectors.....	574	569	3	.....	2	.....
Visits to recreation piers by nurses.....	47	.....	47	.....	.....	.....
Sick babies treated at piers.....	856	856	.....	.....	.....	.....
Visits to educational alliance.....	83	83	.....	.....	.....	.....
Visits to milk stations.....	510	47	463	.....	.....	.....
Visits to all day camp.....	38	.....	.....	38	.....	.....
Special investigation of sick babies.....	36	36	.....	.....	.....	.....
Deaths investigated.....	5	5	.....	.....	.....	.....

Child Hygiene.

localities. For this reason, the placing of infants in homes, when properly safeguarded, cannot but be considered a favorable custom.

For many years it has been the rule of the Department to issue a permit to women to board children, only after a thorough investigation had been made of their personal habits and home surroundings. It has been possible during the past year to have the primary investigation made by specially detailed inspectors, and reinspection of the home, nurse, and baby made at frequent intervals. There are at present 2,500 permits of this nature in force, 158 applications having been denied during the year. Before a permit is recommended the applicant is visited, and inquiry is made as to the following:

Date of inspection.....	
Nature of premises.....	
Location of apartment.....	
Nature of apartment.....	
.....Kitchen.....	cubic feet
.....Bedroom.....	cubic feet
.....Bedroom.....	cubic feet
Number of adults in family.....	
Number of children in family.....	Age.....
Number of boarders.....	(Adults).....
Number of boarders.....	(Children).....
Infectious diseases present.....	
Sanitary conditions.....	
Condition of premises.....	
Condition of rooms.....	
Light.....	Ventilation
Personal appearance of applicant.....	
Condition of child.....	
Wet or dry nurse.....	

When the application is for wet nursing, inquiry is made as to the date of birth of the applicant's last child. This division has limited the period of lactation to twelve months, beyond which it is not justifiable to issue a permit for a woman to wet nurse. Permits issued for this purpose are in force-until revoked. During the year 3,586 applicants for permits have been inspected, and 12,899 inspections made. Owing to frequent reinspections, the conditions surrounding this practice have greatly improved.

INSPECTION OF INSTITUTIONS.

This work was placed under the Division of Child Hygiene on March 1, 1909. The institutions concerned in the care of dependent children are under the supervision of a State Board of Health, by virtue of the provisions of sections 213, 214 and 215 of the Public Health Laws (Laws of 1893, chapter 661, as amended by section 2, chapter 667 of the Laws of 1900).

This law requires that each institution for receiving or caring for orphans, vagrants, destitute or delinquent children shall have attached thereto a regular attending physician, who shall report to the Local

Board of Health once a month in such form as may be approved by the State Board of Health, upon the conditions of the institution and its inmates.

This report should include (1) a statement as to the conditions of the plumbing and lighting of the sinks, water closets, privies and urinals; (2) a statement as to the condition of the dormitories, their air space, as well as regarding the space assigned between the beds used by the inmates; (3) as to the physical condition of the inmates, the presence of any contagious disease, especial attention being given to the eyes and skin, and the presence of any non-contagious illness. The physician is required to state under each heading the number of new cases at the time his report is submitted, the number previously reported, and the total number for each month; (4) a report is required as to the condition of the food, clothing and general cleanliness of the inmates. Also as to whether the officers of the institution have provided proper and sufficient nurses for thorough attention of the inmates; also as to whether there are sufficient orderlies and other attendants of proper capacity to attend the children, and to secure for them the proper care and attention; (5) such recommendations for the improvement thereof as he may deem proper.

The law is explicit as to the ventilation of dormitories in these institutions. The beds in each dormitory must be separated by a passage of not less than two feet in width, and so arranged that under each air shall freely circulate. In every dormitory 600 cubic feet of air space shall be provided and allowed for each bed or occupant, and no more beds or occupants shall be permitted than are thus provided for. A permit must be obtained from the Board of Health, specifying the number of beds allowed, and such permit shall be conspicuously posted in each dormitory. The physician of the institution shall immediately notify, in writing, the local Board of Health of any violation of any provision of this law.

The monthly report of each institution in each borough is mailed to the borough office. It is thence forwarded for investigation and report to a medical inspector, who is required to inspect the institution, and sign the endorsement on the monthly report to the effect that the institution has complied with Sections 314, 315 and 316 of the Public Health Law. The Borough Chief signifies his approval and forwards the report to the Chief of the Division, who in turn forwards it to the Sanitary Superintendent.

Sixty-four institutions have been inspected during the year, with a total of 688 visits. The inspectors have paid particular attention to the welfare of the children, and numerous suggestions for their betterment in connection with a more liberal and varied dietary, improved sanitary surroundings and hygienic living conditions have met with prompt acquiescence.

SUPERVISION OF DAY NURSERIES.

There are at present 72 day nurseries in the City, each conducted under a permit issued by this Department, and subject to a monthly inspection by this Division. The inspection covers:

Child Hygiene.

- (a) Cleanliness, ventilation, heating and lighting.
- (b) Air space and seating capacity, and number of cubic feet per bed or crib, overcrowding.
- (c) Sanitary conditions of boilers or baths.
- (d) Provision for an isolation room.
- (e) Provision for properly ventilated clothes rooms or lockers.
- (f) Use of individual combs, or provisions for disinfection of combs before using.
- (g) Cleanliness of blankets used on cribs, and the prohibition of the use of mattresses.

Daily lists of the cases of contagious diseases occurring in the City are sent to each nursery, and pamphlets regarding the care of the teeth and scalp are provided by the Division for free distribution.

At present the children are inspected each morning by the matron of the nursery to determine the presence of contagious diseases.

Owing to the specialized knowledge essential in dealing with the proper supervision of the nurseries, it has been found necessary to detail special inspectors for this work. During the past year orders have been issued and enforced that permits be displayed in prominent places.

Form of Report Used in Inspection of Day Nurseries.

Nature of premises.....	.....
Location of Nursery.....	.....
Sanitary condition.....	.....
Light.....	Ventilation.....
Toilets.....	Bathrooms.....
Floor.....	No. of Rooms.....
Kindergarten.....	cu. ft.
Nursery.....	cu. ft.
Condition of Rooms.....	.....
Cribs .....	.....
Mattresses, blankets.....	.....
Isolation room.....	.....
Remarks .....	.....

I would respectfully recommend that a permit to conduct a Day Nursery at
be granted: denied.

Medical Inspector.

MEDICAL INSPECTION AND EXAMINATION OF SCHOOL CHILDREN.

The work of the Division of Child Hygiene in the inspection and examination of school children has not undergone any radical change during the year 1909. Reorganization in the methods formerly used was established in the Fall of 1908, and the system which was then inaugurated has been continued through the past year in its major details. It has been the aim of the Division to improve and maintain the efficiency of its work with a view to securing the greatest practical results.

Child Hygiene.

On January 1, 1909, owing to a marked reduction in the force of inspectors and nurses, it was necessary to entirely redistrict the City. In doing this, a plan was made of the City of New York, showing the location of schools and the number of school children in attendance at each one. This plan served as a permanent basis for the year. As far as practical each inspector and nurse has the same number of pupils under their supervision.

At the opening of the school term in September, 1909, the following notice, properly filled in, was handed to each principal by the inspector assigned to the former's school.

"To the Principal of Public School No.

I enclose herewith a copy of the rules and regulations for Inspectors and Nurses assigned by the Department of Health to duty in the medical inspection and examination of school children.

The following Inspector and Nurse have been assigned to duty in P. S. No.

Inspector
Nurse

Very truly yours,
Chief of the Division of Child Hygiene."

In February, a system of lectures were delivered in the public schools to the principals and teachers by the inspectors on this Division. These lectures covered in detail the work of the Department in the schools, and particularly instructed the teachers in the early signs of contagious diseases, and in the gross symptoms of non-contagious physical defects.

Division of Child Hygiene—Medical Inspection of School Children.

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Field of inspection—						
Total number of public schools....	506	157	176	43	95	35
Registration.....	675,624	285,903	254,042	68,054	53,637	13,988
Public schools under inspection....	504	155	176	43	95	35
Registration.....	674,667	284,946	254,042	68,054	53,637	13,988
Other schools under inspection....	156	87	63	6	....	....
Registration.....	99,124	57,167	37,205	4,752	....	....
Total schools under inspection....	660	242	239	49	95	35
Total registration of schools under inspection.....	773,791	342,113	291,247	72,806	53,637	13,988
Medical Inspectors on duty.....	131	57	49	12	10	3
Nurses on duty.....	133	61	49	11	9	3
Number of physical examinations....	231,081	105,999	89,451	19,981	11,295	4,355
Number found needing treatment....	172,112	90,463	58,279	13,709	6,391	5,270
Number reported treated.....	150,314	79,605	51,683	12,635	4,768	2,320
Cases Found and Excluded—						
General Contagious Diseases:						
Found and Excluded.....	5,441	2,514	2,369	335	125	98
Eye and Skin Diseases:						
Found.....	286,591	144,304	100,436	16,407	21,219	4,225
Excluded.....	5,455	1,939	2,843	418	231	24
Contagious Diseases found in homes of absentees.....	2,902	1,309	1,060	154	84	295

Child Hygiene.

INSPECTION FOR CONTAGIOUS DISEASES.

2,997,928 inspections of children have been made, with the result that 10,896 have been excluded from school attendance because of the presence of contagious disease.

The number of children under supervision includes:

674,667 in the public schools,
86,306 in the parochial schools,
12,818 in industrial and other free schools.

Exclusions have been made for the following causes:

Scarlet fever.....	125
Diphtheria	1,159
Measles	381
Chickenpox	1,517
Pertussis	434
Mumps	1,587
Tuberculosis	238
Contagious eye diseases.....	2,730
Contagious skin diseases.....	<u>2,725</u>

The treatment of contagious eye and skin diseases has been carried on with great thoroughness; 361,225 treatments have been made to 254,315 children, and a total of 1,093,706 instructions have been given to the treatment of pediculosis and trachoma. The former condition, while still unduly prevalent, occurs in a much milder form than in previous years. A circular relating to the treatment of this affection has been prepared and distributed; these circulars have been left at each home visited, while all mothers interviewed have been instructed in the prevention of contagious diseases.

Visits to Homes by Inspectors and Nurses—Cases of Contagious Diseases Found.

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Visits—						
Inspectors	182,227	97,376	65,766	11,644	4,780	2,661
Nurses	167,939	82,937	62,315	12,549	8,380	3,758
Diseases Found—						
Diphtheria.....	71	41	19	2	1	8
Scarlet fever.....	207	91	81	11	12	12
Measles.....	1,194	486	416	45	43	204
Chicken-pox.....	744	396	243	47	6	52
Pertussis.....	367	154	164	27	7	15
Mumps.....	316	139	137	22	15	3
Tuberculosis.....	3	2	....	....	....	1
Total.....	2,902	1,309	1,060	154	84	295

Contagious Diseases Found in Schools by Inspectors and Nurses—Number and Disposition of Cases.

	General Contagious Diseases.							Total.
	Diphtheria.	Scarlet Fever.	Measles.	Chicken-pox.	Whooping cough.	Mumps.	Tuberculosis.	
Cases Found in Schools and Excluded—								
New York.....	1,159	125	381	1,517	434	1,587	238	5,441
Manhattan.....	474	54	210	737	184	732	123	2,514
The Bronx.....	44	13	13	96	64	77	28	335
Brooklyn.....	595	49	141	597	157	751	79	2,369
Queens.....	18	4	11	51	10	24	7	125
Richmond.....	28	5	6	36	19	3	1	98

Communicable Diseases of Eye and Skin.									
Trachoma.	Con-junctivitis.	Ringworm.	Impetigo.	Scabies.	Favus.	Pediculosis.	Molluscum Contagiosum.	Miscellaneous.	Total.
New York—									
Cases found in schools.....	45,615	7,788	12,516	4,006	499	151,585	154	14,621	286,591
Cases excluded from school.....	1,392	121	250	319	18	2,014	3	.....	5,455
Number of treatments and instructions.....	310,405	159,012	42,046	63,620	23,697	783,241	991	83,526	1,474,919
Manhattan—									
Cases found in schools.....	31,037	4,872	4,424	2,012	227	76,483	103	8,465	144,304
Cases excluded from school.....	658	33	25	67	5	534	.....	.....	1,939
Number of treatments and instructions.....	205,755	50,362	30,379	14,476	2,267	387,668	684	38,295	764,662
Brooklyn—									
Cases found in schools.....	7,875	1,868	5,856	1,598	204	53,881	35	5,217	100,436
Cases excluded from school.....	597	69	168	187	11	1,243	3	.....	2,843
Number of treatments and instructions.....	50,760	9,014	23,487	7,074	707	281,776	219	28,385	479,684
The Bronx—									
Cases found in schools.....	2,298	586	668	162	26	11,198	5	344	16,407
Cases excluded from school.....	73	9	32	30	1	169	.....	.....	418
Number of treatments and instructions.....	23,455	1,973	2,951	1,122	136	57,217	31	2,715	94,890
Queens—									
Cases found in schools.....	4,336	7,073	1,161	114	23	7,795	9	401	21,210
Cases excluded from school.....	62	58	22	25	1	53	.....	.....	231
Number of treatments and instructions.....	29,595	20,381	5,029	724	148	42,123	46	11,038	110,628
Richmond—									
Cases found in schools.....	69	155	407	120	19	2,228	2	214	4,225
Cases excluded from school.....	2	.....	3	4	.....	15	.....	.....	24
Number of treatments and instructions.....	930	4,517	1,754	391	63	14,457	11	2,693	25,115

Child Hygiene.

Vaccinations in Schools—Borough of Manhattan Only.

Field of Work—

Inspectors on duty.....	2
Schools visited.....	20
Registration in schools covered by school vaccinators during year.....	26,974

Work Performed—

Children examined.....	26,499
Children vaccinated by department physicians.....	22,163
Children vaccinated by other physicians.....	2,724
Children not requiring vaccination.....	1,550
Children pending vaccination.....	62

TRACHOMA.

A marked improvement has been noted in the cases of trachoma reported to this division. The children thus affected are referred for treatment either to their own physician or to Department of Health Dispensary, meanwhile, being kept under continuous observation by the nurse.

The routine inspection of the children in the class rooms has been made more effective not only for the reason that contagious diseases are diagnosed earlier by this procedure, but especially for the reason that the opportunity of direct association with the children has enabled the nurses to impress upon them the necessity of personal cleanliness and hygiene.

Because of the urgent need of the control of contagious diseases, this branch of the work has been carried on not only in the public schools, but also in the parochial and other free schools of the city. Owing to the reduction in the force it has not been possible to pursue the other branches of the school work in other than the public schools. The results in the latter prove the urgent need of its extension to include all of the free schools of the city.

TUBERCULOSIS.

Exclusion from school of children suffering from an acute type of tuberculosis was instituted during the early part of the year. Incipient cases with no expectoration or objective signs and physical symptoms, and who are not a source of danger to others, are allowed to remain in school.

A large number of the exclusions are made as a result of a primary diagnosis established in the clinics of the Division of Communicable Diseases. In addition, the cases diagnosed by the inspectors in the schools are referred to the clinics for confirmatory diagnosis before exclusion. During the year 258 children have been excluded for this cause.

Eye and Skin Diseases.

	Trachoma.	Pediculosis.	Conjunctivitis.	Ringworm.	Scabies.	Impetigo.	Favus.	Molluscum. Contagiosum.	Miscellaneous.	Total.
New York City—										
Cases found.....	45,615	151,585	40,807	7,788	4,006	12,516	499	154	170,545	451,515
Cases excluded.....	1,302	2,014	1,338	121	319	250	18	3	.....	5,455
Treatments and instructions.....	310,405	783,241	150,012	48,046	23,697	63,622	3,321	1,001	82,526	1,474,931
Manhattan—										
Cases found.....	31,037	76,483	16,681	4,872	2,012	4,424	227	103	87,943	223,782
Cases excluded.....	658	531	617	33	67	25	5	.....	.....	1,939
Treatments and instructions.....	205,755	387,668	50,302	34,666	14,476	30,399	2,267	684	38,295	764,002
The Bronx—										
Cases found.....	2,208	11,198	1,140	586	162	668	26	5	8,216	24,299
Cases excluded.....	73	169	98	9	36	32	1	.....	.....	418
Treatments and instructions.....	23,455	57,217	5,290	1,973	1,122	2,951	136	43	2,715	94,902
Brooklyn—										
Cases found.....	7,875	53,881	23,902	1,868	1,598	5,856	224	35	64,684	159,003
Cases excluded.....	597	1,243	565	69	187	168	11	3	.....	2,843
Treatments and instructions.....	50,760	281,776	78,262	9,014	7,074	23,489	707	217	28,385	479,684
Queens—										
Cases found.....	4,336	7,795	7,073	307	114	1,161	23	9	16,105	36,923
Cases excluded.....	62	53	58	10	25	22	1	.....	.....	231
Treatments and instructions.....	20,565	42,123	20,581	1,374	724	5,029	148	46	11,038	110,628
Richmond—										
Cases found.....	69	2,228	1,011	155	120	407	19	2	2,597	6,608
Cases excluded.....	2	15	.....	.....	4	3	.....	.....	.....	24
Treatments and instructions.....	930	14,457	4,517	989	301	1,754	63	11	2,093	25,115

EXAMINATION FOR PHYSICAL DEFECTS.

One of the marked advances in the work of the Division during the past year is shown by the results attained in the diagnosis and treatment of non-contagious physical defects.

During the school year of 1908-1909, reports of defects found, and treatment provided for the children were given in each case to the principals of the schools. These reports were rarely tabulated or preserved by the school authorities, and, therefore, these valuable data relating to the child's welfare were of no permanent value. In order to obviate this condition, and to provide a means whereby the facts relating to the child's physical condition and scholastic progress, might be kept in a consecutive and permanent form, a card record form was devised by officials of the two departments. Health and Educational, and put in use at the beginning of the school term. When a child is examined the defects found are indicated in the appropriate column of said card, and the character of the treatment obtained is recorded by the nurse in the second column of the same card, under the same year. The face of the card is filled out by the school authorities to indicate the child's school record. These cards are kept in the school, and in the case of transfer of the child are forwarded to the new school which the child attends.

A new form of inspectors' and nurses' report has been prepared to be used in conjunction with the school record. The system is a marked advance, and promises to afford valuable data hitherto unavailable.

TEETH.

The largest number of defects found have been those of the teeth. The relation of decayed teeth and unclean mouths to malnutrition, adenitis, and the liability to contract contagious diseases is too well known to merit more than passing comment. Of a total of 231,081 children examined, 131,747 were found to have defective teeth.

There are in the city eighteen free dental clinics. Only a few make any pretense of filling teeth, and indiscriminate extraction has occurred in many cases presented for treatment. Notwithstanding the most strenuous efforts on the part of the nurses, treatment has been provided in only 4,616 instances; the cases of extraction numbering 2,025, and fillings, 2,501.

A special investigation of the condition of the teeth among school children was made, and 500 children, between the ages of 14 and 16 years, were examined by Wallace T. Van Winkle, with results as follows:

Total number of children examined (boys, 311; girls, 189) ..	500
Ages, 14, 15 and 16 years.....	.....
Total number of defective teeth (boys, 1,702; girls, 1,106) ..	2,808
Total number showing defective teeth.....	486
Total number of teeth which were extracted.....	385
Total number of teeth requiring extraction.....	257

Child Hygiene.

Total number of teeth with gangrenous tooth pulps (boys, 247; girls, 152).....	399
Total number of children receiving dental treatment other than extraction (boys 18, girls 7).....	25
Total number of teeth filled (boys 36, girls 5).....	41
Total number of gold crowns.....	3
Total number requiring cleansing of teeth.....	500
Total number of mal-occlusion of teeth.....	419

Most of the children showed a more or less complete lack of dental hygiene, their mouths, in many instances, filthy to a degree almost unbelievable.

Many of the parents accompanying the children manifested considerable interest in the examination, and frequently inquired whether there were not some public dispensary to which the child could be taken for treatment.

What percentage of these children are able to pay for dental services is not known. Some of them no doubt could do so, were they less ignorant of the importance of such care.

Some interesting facts have been emphasized by these examinations: First, the almost complete lack of dental treatment among the inferior classes, coupled with an almost universal need. Second, the importance of preventive dental treatment. Could these children have had proper dental treatment, the present deplorable conditions could have been reduced 75 per cent., to say nothing of the influence of these conditions upon the health of these would-be wage earners. Third, the need of dental dispensaries where those unable to pay can receive treatment. Fourth, some means of educating the people as to the importance of dental treatment, and value of preventive rather than reparative dentistry.

Dental clinics are of great necessity, and practically represent the only solution to the problem of correcting defects of this class among the school children of the City of Greater New York. Plans have been formed by several philanthropic citizens to at least partly meet this need. While in no degree lessening the activity in the line of correction of these defects, the efforts of the Division this year have been largely directed to preventive measures. To this end a circular on oral hygiene has been prepared and distributed in the schools and homes.

The children in the schools are assembled in groups and instructed by the nurses in the hygiene of the mouth. Home instruction is carried out by the nurses in each family visited, and mothers of infants are urged to care for the baby's teeth as soon as they appear. These instructions are made as thorough as possible. The aim of the Division as regards this work is to see that every school child, and all mothers, not only understand the great importance of clean mouths and sound teeth, but that the practice of mouth hygiene is consistently and persistently followed.

Child Hygiene.

DEFECTIVE VISION.

30,408, or 13 per cent. of the children examined, were found to have defective vision. 22,340, or 73 per cent., were treated for this defect, and in 8,218 instances glasses were provided. Through the co-operation of the Charity Organization Society in the Borough of Manhattan, and the Children's Aid Society in the Borough of Brooklyn, all children whose families were unable to pay for glasses were provided by these organizations free of charge. The decrease in the number of uncorrected defects of this nature is undoubtedly accounted for by the increasing vigilance of the parents and teachers. During the latter half of the year, this decrease has been noticeable in all classes of physical defects, reports from the dispensaries and inspectors clearly showing that there has been a marked effort on the part of the children affected with these conditions to obtain treatment for their defects, before, instead of after their physical examination by the inspector. The realization by the teachers that improved eyesight has meant improved scholarship has contributed largely to this result, and is indicative of the effect of the educational work of this Division.

DEFECTIVE HEARING.

2,340, or a trifle over 1 per cent. of the children, were found to have defective hearing. There are many difficulties in the way of an accurate determination of this defect. Owing to the large number of foreign-born children in the schools, many of which have but a slight acquaintance with our language or customs, ignorance, confusion or apparent stupidity may often be mistaken for impairment of hearing. Even with these chances of error in diagnosis, it is probable that the number of children whose powers of hearing are below the normal is sufficiently large to warrant their segregation in special schools or classes, where they may have the advantage of a form of instruction suited to their abnormal condition.

DEFECTIVE NASAL BREATHING.

It does not yet seem practical to enter into complicated methods of examination necessary and essential to the proper diagnosis of the presence of adenoids. The wide difference of opinion still existing in the medical profession as to the readily demonstrable stigmata for a positive diagnosis without exploration or visual examination of the naso-pharyngeal vault, has opened an avenue for conflicting diagnoses and criticisms. It has therefore been the policy of the Division to call the attention of the parents to objective symptoms in the child, which point to obstruction of the nasal passages, classifying such cases under the general term of "defective nasal breathing." The cause of the nasal occlusion is left for the family physician to determine. The reports of these physicians have shown conclusively that adenoid growths were present in the vast majority of cases. Of a total of 43,393 children so affected, 40,096 have received treatment.

HYPERTROPHIED TONSILS.

Second in number only to the cases of defective teeth, hypertrophied tonsils have been found in 50,934 instances, 22 per cent. of the children examined. This defect is associated in most cases with adenoid vegetations, and operative treatment employed almost invariably includes the correction of both abnormal conditions. 44,153 of these children have received treatment.

MALNUTRITION.

The determination of this condition affords an opportunity of wide discrimination. The standard of the Division places in this classification those cases only where the subjective and objective symptoms warrant the recognition of the condition existing as a comprehensive entity, and where the child needs immediate and active remedial measures to restore its physical status to the normal.

Experience has shown that malnutrition exists in a varying degree as an associated defect where other definite deviations from the normal standard are found. This associated malnutrition, however, tends to correct itself when the primary or causative physical defect is removed.

Whenever it has been apparent that an adjustment of home conditions, including hygiene and proper feeding, would supply the needed elements to nourish the child, the nurses have instructed the mothers in detail and supervised the routine of the child's life. When mere ignorance was encountered the results of this plan have been most encouraging. Poverty furnished the usual difficult problem, but with the co-operation of the various aid societies, the nurses have been able to afford a partial solution. The number of such cases found, 7,249, though an inconsiderable per cent. of the total, still in the aggregate merits serious consideration.

ORTHOPEDIC DEFECTS.

The wide interest taken in crippled children, and the many societies and dispensaries maintained for their care and treatment, have served to afford adequate relief for the marked types of orthopedic defects. Physical examination of the children has, however, brought to light many hitherto undiscovered cases of milder forms or early symptoms, which, if neglected, would inevitably lead to permanent deformity. 1,461 uncorrected cases have been found. Many of these children can be cured by proper physical exercises. Such classes are maintained in the schools, under the supervision of the Director of Physical Training. Each case is individually judged and a proper course of physical exercises outlined by the inspector in conjunction with the teachers of physical culture. This co-operation has been extremely valuable, and its increased development will prove of great service in correcting the early stages of many otherwise chronic deformities.

Child Hygiene.

OTHER PHYSICAL DEFECTS.

	Cases Found.	Cases Treated.
Cardiac diseases	1,503	1,083
Pulmonary diseases	744	697
Chorea	940	714
Tubercular lymph nodes.....	810	521
Defective palate	324	186

In all, during the year, 231,081 children have been examined. 202,150 have been found to have one or more physical defects, including defective teeth, while 69,962 children were normal, except for the presence of defective teeth. The individual defects found numbered 140,106 (excluding those cases of defective teeth only). 117,662, or 84 per cent. received treatment.

Previous to the establishment of this Division, although the children were examined for physical defects, the system pursued did not provide for any adequate method of giving treatment. Under this system about 6 per cent. of the children obtained medical care. It is now the duty of the nurses to visit the homes, explain the nature of the defect, and urge upon the parents the necessity of proper treatment. In the early part of the year many visits to individual cases were made before the parents could be brought to realize that it was necessary that the child be taken to a physician. The attitude of the parents has shown a decided change, as they have realized the ensuing beneficial results to the child, and while ignorance and indifference are still met with, yet the increasing knowledge of the beneficent purpose of the Department, and the helpful, painstaking and untiring efforts of the nursing staff, have brought about a spirit of parental co-operation which promises much for future achievement.

An interesting feature of the work was shown by the children themselves, who, during the summer vacation, presented themselves voluntarily to many of the clinics of the City for diagnosis and treatment of physical ills, so that they might obviate the possible treatment after examination by the school inspector.

During the routine examination of the children in January marked, physically defective cases requiring immediate treatment were about 5 per cent. of the number of children inspected, whereas the routine inspection in December showed a record of less than 1 per cent.

SPECIAL PHYSICAL EXAMINATION OF BOYS INTENDING TO COMPETE IN THE PUBLIC SCHOOL ATHLETIC CONTESTS.

In November the City Superintendent of Schools requested that all boys desiring to participate in athletic contests be physically examined. This work was commenced on November 19, and between that date and the end of the year 153 such examinations were made. Its effect must necessarily be shown in the elimination from these contests of the physically unfit, and the reduction in the number of preventable organic lesions, resulting from overstrained parts of the body.

Child Hygiene.

EXAMINATION FOR ATHLETIC LEAGUE.

December 13 to December 31, 1909.

Number of children examined.....	153
Number of children found defective.....	98
Defective, other than teeth only.....	47
Defective teeth only.....	51

Defects Found.

Defective vision	25
Defective nasal breathing.....	14
Hypertrophied tonsils	20
Cardiac disease	4
Malnutrition	1
Defective teeth	84

Physical Examination of School Children—Non-contagious Physical Defects Found and Treated.

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Number of physical examinations made.....	231,081	105,999	89,451	19,981	11,295	4,355
Number found needing treatment.....	172,112	90,463	58,279	13,709	6,391	3,270
Percentage of those examined needing treatment.....	74.48	85.34	65.15	68.61	56.58	75.09
Defects Found—						
Defective vision.....	30,408	18,216	8,367	2,157	932	736
Defective hearing.....	2,340	1,105	773	259	109	94
Defective nasal breathing.....	43,393	29,681	7,898	3,423	1,809	582
Hypertrophied tonsils.....	50,934	29,189	13,932	4,248	2,801	764
Tuberculous lymph nodes.....	810	168	112	39	447	44
Pulmonary disease.....	744	426	98	162	50	8
Cardiac disease.....	1,503	798	456	181	32	36
Chorea.....	940	578	115	187	16	44
Orthopedic defect.....	1,401	1,018	290	67	50	36
Malnutrition.....	7,249	5,120	1,332	619	43	135
Defective teeth.....	131,747	69,231	47,015	9,968	2,865	2,668
Defective palate.....	324	221	68	18	15	
Number reported treated.....	150,314	79,608	51,683	12,635	4,068	2,320
Percentage of those needing treatment known to have been treated.....	87.33	88.00	88.68	92.17	63.65	70.95

Examination and Treatment of School Children for Non-contagious Physical Defects.

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
Examination—						
Total schools under inspection....	660	242	239	49	95	35
Total registration in schools under inspection.....	773,791	342,113	291,247	72,806	53,637	13,988
Number of children examined....	231,081	105,999	89,451	19,981	11,295	4,355
Percentage of registration.....	29.86	30.98	30.71	27.44	21.06	31.13
Number needing treatment.....	172,112	90,463	58,279	13,709	6,391	3,270
Percentage of those examined needing treatment.....	74.48	85.34	65.15	68.61	56.58	75.09

Child Hygiene.

Treatment of Individual Defects.

Defect.	Number Children Defective.	Character of the Treatment.	Number Treated.	Per Cent Treated.
1. Defective vision.....	30,408 {	Glasses	8,218	27.0
		Medical	14,122	46.3
Total			22,340	73.3
2. Defective hearing.....	2,340	Medical.....	1,868	80.0
3. Defective nasal breathing.....	43,393 {	Operative.....	9,974	23.0
		Medical.....	30,122	69.5
Total			40,096	92.5
4. Hypertrophied tonsils.....	50,934 {	Operative	10,757	20.0
		Medical.....	33,396	65.5
Total.....			44,153	85.5
5. Tuberculous lymph nodes.....	810	Treatment.....	521	64.5
6. Pulmonary disease.....	744	Treatment.....	697	93.7
7. Cardiac disease.....	1,503	Treatment.....	1,053	72.0
8. Chorea.....	940	Treatment.....	717	75.2
9. Orthopedic defects.....	1,461 {	Medical.....	820	75.0
		Physical culture	53	4.7
Total			873	79.7
10. Malnutrition.....	7,249 {	Medical.....	4,878	67.3
		Instruction	250	3.4
Total			5,128	70.7
11. Defective teeth.....	131,747 {	Extraction	2,025	1.9
		Filling.....	2,591	2.4
12. Defective palate.....	324	Oral Hygiene.....	131,747	100.0
		Treatment	186	61.0

WHERE THE CHILDREN WERE TREATED.

A record of the place where treatment was obtained has been kept during the past year. Although this record does not cover the entire year, 84,533 cases in which treatment was obtained were tabulated as follows:

Treated by Private Physicians.

Operative treatment	7,010
Medical treatment	39,915

46,925—55 per cent.

Treated at Dispensaries or Hospitals.

Operative treatment	13,955
Medical treatment	23,653

37,608—45 per cent.

Child Hygiene.

This seems to show that the greater proportion of children consulted private physicians. The dispensaries and hospitals, however, have done most of the operative work, *i. e.*, nearly twice as many operations were performed in dispensaries, etc., as were done by private physicians.

Treatment of Physical Defects, 1909—General Summary.

	Number.	Per Cent.
Children examined	231,081	....
Found needing treatment.....	172,112	74.5
For defective teeth only.....	69,962	30.1
For teeth and associated defects.....	61,785	29.5
For other defects only.....	40,365	14.9
Children who received treatment.....	<u>150,314</u>	87.3

ISSUING OF EMPLOYMENT CERTIFICATES.

The enforcement of that part of the Mercantile or Child Labor Law, which relates to the issuing of employment certificates to all children between the ages of 14 and 16 years, who wish to work, shows an increase in the work performed over that of 1908.

The following table shows in detail the results accomplished:

	1909.					
	New York City.	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.
Applications pending.....	138	125	6	2	5	.....
New applications received.....	31,747	16,587	2,740	9,952	2,045	423
Total.....	<u>31,885</u>	<u>16,712</u>	<u>2,746</u>	<u>9,954</u>	<u>2,050</u>	<u>423</u>
Certificates granted.....	29,843	15,488	2,560	9,429	1,964	402
Certificates refused.....	1,635	913	161	477	63	21
Certificates still pending.....	407	311	25	46	23	.....
Total.....	<u>31,885</u>	<u>16,712</u>	<u>2,746</u>	<u>9,954</u>	<u>2,050</u>	<u>423</u>
Refused for—						
Insufficient education.....	484	191	20	262	11	.....
Insufficient Tuition.....	414	303	33	51	23	4
Insufficient evidence of age.....	95	60	4	9	14	8
Under age.....	351	167	25	136	14	9
Physical incapacity.....	291	192	79	19	1	.....
Duplicate certificates issued.....	939	577	90	240	27	5

In order to obtain more systematic alliance in its enforcement, copies of the Mercantile Law have been sent to each Public School Principal in the city, and a weekly statement of certificates issued in the indicated school is also sent to the principal.

On July 1, at the close of the school year, it was decided to institute the work for the summer months. Accordingly a force of inspec-

Child Hygiene.

Employment Certificates.

	New York.	Manhattan.	Brooklyn.	The Bronx.	Queens.	Richmond.
*Applications for employment certificates.....	31,885	16,712	9,954	2,746	2,050	423
Granted.....	29,843	15,488	9,429	2,560	1,964	402
Refused.....	1,635	913	477	161	63	21
By reason of insufficient education.....	484	191	262	20	11	.....
By reason of insufficient tuition.....	414	303	51	33	23	4
By reason of insufficient evidence as to birth.....	95	60	9	4	14	8
By reason of physical incapacity.....	291	192	19	79	1	.....
By reason of being under age.....	351	167	136	25	14	9
Pending.....	407	311	48	25	23	.....
Duplicate certificates issued.....	939	577	240	90	27	5
Certificates in force January 1, 1909.....	33,921	18,652	9,238	3,296	2,233	502
Certificates granted during year 1909.....	29,843	15,488	9,429	2,560	1,964	402
Certificates expiring during year 1909.....	25,076	14,045	6,878	2,314	1,465	374
Certificates in force December 31, 1909.....	38,688	20,095	11,789	3,542	2,732	530

* Children applying and found over age are considered as not having applied.

tors was detailed to the various borough offices, and each child applying for an employment certificate was given a thorough physical examination, to determine its physical fitness for work. The results were as follows:

A Tabulation of the Physical Examinations Made in the Mercantile Bureau of Children Applying for Employment Certificates from July 1 to September 14, 1909, Inclusive.

	New York City.	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.
Number of children examined.....	3,736	1,764	343	1,330	269	30
Number found defective—						
Other than teeth only.....	844	245	104	471	17	7
Teeth only.....	1,696	914	95	566	102	19
Defects—						
Defective vision.....	379	48	36	288	2	5
Defective hearing.....	7	2	1	4	.....	.....
Defective nasal breathing.....	179	59	28	89	2	1
Hypertrophied tonsils.....	390	175	47	152	14	2
Tuberculous lymph nodes.....	1	.....	.....	1	.....	.....
Pulmonary disease.....	2	.....	1	1	.....	.....
Cardiac disease.....	9	2	2	5	.....	.....
Chorea.....	2	1	.....	1	.....	.....
Orthopedic defect.....	7	3	.....	4	.....	.....
Malnutrition.....	19	3	1	15	.....	.....
Defective teeth.....	2,185	1,102	145	808	108	22
Defective palate.....	3	1	.....	2	.....	.....

At the opening of the school session in September, 1909, an arrangement was made with the City Superintendent of the Public Schools, whereby each child applying to the principal for a record of school attendance to be used in applying for an employment certificate is directly referred to the inspector in the school for a physical examination. A record, showing the defects found, is made in duplicate by the

inspector, one copy is given to the child, who is required to present it at the Department office as part of his application record, and the other copy is forwarded, by the inspector directly, to the Chief of the Division, where it is kept on file. This system has shown its value by the increased number of children refused certificates because of physical incapacity.

Uniformity of methods have been established in all of the borough offices, in addition to the special agent in the Manhattan office, the Child Labor Committee has assigned a representative to the Brooklyn office. These agents are assigned for the purpose of rendering aid to children who need assistance in establishing necessary proof of age. Their efforts have proved of much value, and have materially increased the efficiency of the work.

Acting on the authority furnished by opinions rendered from the office of the Corporation Counsel, transcripts have been made of documentary proof of age submitted by applicants. These transcripts are filed with the application and the original evidence returned to the applicant. This documentary proof includes school diplomas, family bibles, insurance policies and other forms of personally valuable data. It has formerly been the cause of much hardship and anxiety to have these documents retained by the Department. Their return not only affords much satisfaction to the applicant, but obviates the filing of cumbersome and often valuable records.

Inspectors familiar with foreign languages have been assigned to duty in the Mercantile office, and all foreign documents are translated for applicants. This has resulted in a great saving of time, labor and money for these people, as formerly they were required to have the translations made at their own expense, with an added fee for their attestation by a notary public. During the year 29,843 certificates were granted; an increase of 5,911 over the preceding year. 1,635 applications were refused, as opposed to 2,427 in 1908. The refusals in detail and the reasons for the decrease may be summed up as follows:

INSUFFICIENT EDUCATION.

Four hundred and eighty-four applications were refused for this reason, as compared with 462 in 1908. That portion of the law that requires the inspector to test the child's ability to read and write simple sentences in the English language has been more vigorously and uniformly enforced. During the first six months of the year, 320 children were refused, in comparison with 193 during the first six months of 1908. The fact that 19 per cent. of the total refusals were for this cause is worthy of particular comment, for each of these children presented a record of school attendance signed by the principal, certifying that the child had received the requisite instruction required by the laws. Probably, as a result of this serious situation, with its implied comment on the quality of the education provided for these children, the Department of Education has instituted a special test or examination, which each child must now pass before a school record will be issued.

Child Hygiene.

The result of this measure is well illustrated by the decided decrease in the number of children refused for this reason during the latter six months of the year; 164, or nearly 50 per cent. less than the preceding period.

INSUFFICIENT TUITION.

These cases include those children who have either never attended school, or who have not attended the required 130 days the year previous to their fourteenth birthday, or the date of application. The decrease in the number from 700 in 1908 to 414 in 1909, is undoubtedly due to the increased knowledge of the law and its requirements. This year the names and addresses of all children who have never attended school have been regularly sent to the Associate City Superintendent of Schools in charge of the enforcement of the compulsory education law, thereby affording an opportunity for enforcing school attendance on this heretofore neglected class of truants.

INSUFFICIENT EVIDENCE OF AGE.

The section of the Mercantile Law which provides that children unable to submit documentary evidence of the date of birth, may apply for a physical examination to determine their age, has been more actively enforced in the past year. As a matter of fact, this provision should eliminate all refusals for this cause. A certain number of children, however, after filing applications for the physical examination, do not return to have it made. That the Division has been very successful in its efforts, however, is indicated by the marked decrease in this class of refusals from 424 in 1908 to 95 in 1909.

PHYSICAL INCAPACITY.

The increase in the number of refusals for this cause is most gratifying, as indicating the more thorough attention given this subject. From 111 in 1908, the number has increased to 291 in 1909. For the first time a definite standard of physical status has been established this year, and this, added to the information obtained from the physical examination now being made, has resulted in keeping from the factory and work room those children physically unfitted to perform labor of this nature.

UNDER AGE.

Another evidence of the more general knowledge of the law is shown by the lessening number of children under the legal age who applied for certificates. This decrease, from 730 in 1908 to 315 in 1909, can only be accounted for in this manner.

To sum up, the increase in the refusals of applications are in those lines which show a more adequate enforcement of the law by the Department, while the decreases are for reasons which clearly indicate the increased knowledge of the law on the part of the public.

Child Hygiene.

While the Department has no option in its enforcement of the Mercantile Law, its practical working does undoubtedly, in some instances, impose seemingly unnecessary difficulties and hardships on applicants and their families. This is especially evident in the provisions of the law relating to the proof of age. While it is eminently desirable that all possible means be taken to ascertain that the child is at least fourteen years of age, it would seem that this end might be attained by the submission of proof quite as reliable and satisfactory as the required birth certificates now demanded as primary evidence.

SECRETARY'S REPORT.

DEPARTMENT OF HEALTH, CITY OF NEW YORK,
Southwest Corner 55th St. and Sixth Ave.,
Borough of Manhattan,
New York, December 31, 1909. }

To the Board of Health, City of New York:

GENTLEMEN—I have the honor herewith to submit the following report of transactions in the office of the Secretary, of the Chief Clerk and of the Assistant Chief Clerks assigned to duty in the various boroughs of this city, during the year 1909. From a comparison of the work performed during the past year with that of the previous year there is an appreciable increase, not only in the amount of business transacted but in the efficiency of those comprising the staffs in the various offices.

Orders of the Board for the abatement of nuisances and notices calling attention to violations of the sanitary code are, under an authority granted several years ago, issued by and through the Sanitary Superintendent and the Assistant Sanitary Superintendents in the various boroughs, and statistics relating to such orders and notices will be found in the report of the Sanitary Superintendent.

Some years ago, the Board instituted a system of charging applicants for searching records containing sanitary violations against premises and the amount received during the current year will compare favorably with that of preceding years. One thousand four hundred and seventy-seven dollars and fifty cents (\$1,477.50) were received from this source and transmitted to the City Chamberlain to be added to the general fund. Receipts for searches of the records of vital statistics in the various boroughs amounted during the year to twenty-three thousand seven hundred and ninety-one dollars and thirty cents (\$23,791.30), distributed as follows:

Borough of Manhattan.....	\$13,911.40
Borough of Brooklyn.....	7,288.50
Borough of The Bronx.....	1,519.10
Borough of Queens.....	813.10
Borough of Richmond.....	259.20

This amount was also forwarded to the City Chamberlain. Formerly all moneys received from these sources were applied to the Health Department Pension Fund, but under an amendment to the law specifying what moneys shall be included in the pension fund, these fees were eliminated, and ordered applied to the redemption of the

Secretary's Report.

public debt. From the number of persons who have recently been added to the list of beneficiaries of the Health Department Pension Fund, it will be only a question of time when the outgo will greatly exceed the income and it will be necessary for the trustees to commence payments from the principal of the fund, for pensions, unless some means are found to supply a larger income, and, in this connection I would strongly urge that steps be taken to again amend the law, so that the Health Department Pension Fund will embrace all fees for searches of the records of vital statistics and other records of the department, as formerly.

The total appropriation made to the department during the year, amounted to two million four hundred and eighty-four thousand eight hundred and fifty-nine dollars and twenty-five cents (\$2,484,859.25); revenue bonds to the amount of fifty-four thousand two hundred and seventy-five dollars (\$54,275), while the corporate stock authorized and issued by the Board of Estimate and Apportionment during the same period totaled five hundred thousand dollars (\$500,000). The amount received for sales of laboratory products, such as vaccine virus, antitoxin, preventive hydrophobia treatment, etc., etc., was forty-three thousand four hundred and ninety-one dollars and sixteen cents (\$43,491.16), while that received from the United States Government for the care and maintenance of immigrants amounted to fifty-six thousand and ninety dollars (\$56,090), a grand total of three million one hundred and thirty-eight thousand seven hundred and fifteen dollars and forty-one cents (\$3,138,715.41).

The amount paid in salaries for the same period, in all boroughs, exclusive of hospitals, was one million four hundred and forty-six thousand three hundred and forty-seven dollars and ninety-four cents (\$1,446,347.94); hospitals, three hundred and thirty-eight thousand and eighty-nine dollars and forty-nine cents (\$338,089.49), and the amount disbursed by the Secretary for postage and incidental expenses of the office was fifty-seven thousand eight hundred dollars (\$57,800), for all boroughs.

Estimates of the amounts needed to carry on the work of the department, are made up during the months of June and July of the year preceding that in which the moneys are to be expended. When this is remembered, it will be readily appreciated how difficult it is to frame an estimate which will meet the needs of the department for a time so far in advance. Looking backward to the year 1910, the budget for that year, based upon the estimates framed during the early part of the year of 1909, contained provision for an appropriation of two million seven hundred and forty-seven thousand seven hundred and twenty-three dollars (\$2,747,723), an increase of two hundred and sixty-two thousand eight hundred and sixty-three dollars and seventy-five cents (\$262,863.75) over the previous year.

A new system of accounting inaugurated on January 1, 1908, has been perfected during the past year and with the new form of budgetary appropriations, the financial records of the department are at all times, in such a condition as to enable the Chief and Auditing Clerk to determine the exact financial condition at any moment. Trial bal-

Secretary's Report.

ances are prepared and forwarded to the Comptroller, the Mayor, and the Commissioners of Accounts on the tenth day of every month.

Contracts for supplies for the various offices, hospitals, laboratories and clinics of the department during the year amounted in the aggregate to three hundred and twenty-one thousand one hundred and sixty-four dollars and fifty-three cents (\$321,164.53). This should not be confounded with orders for supplies in amounts costing less than one thousand dollars (\$1,000), which are filled by what are termed "open market orders."

The inspection of all supplies is under the immediate supervision of the Chief Clerk, who has a competent corps of inspectors detailed to his offices for the purpose.

Again referring to the subject of the Health Department Pension Fund, the receipts for the year from four sources, namely, attorneys' costs, fines and penalties for violations of the sanitary code, and assessments of one per cent. paid by participating employees, together with the interest allowed by depositories amounted to forty-four thousand three hundred and forty dollars and thirty-two cents (\$44,340.32). There was on deposit on January 1, 1909, the sum of two hundred and forty-seven thousand two hundred and fifty-nine dollars and eighty-one cents (\$247,259.81). Expenditures for the year amounted to thirty-five thousand eight hundred and four dollars and seventy-six cents (\$35,804.76). On December 31, 1909, after deducting the amounts paid during the year, there remained on deposit with the Windsor Trust Company, the Empire Trust Company and the Knickerbocker Trust Company, designated depositories paying interest at three and one-half per cent., the sum of two hundred and fifty-five thousand, six hundred and ninety-five dollars and thirty-seven cents (\$255,695.37), a very slight increase over the preceding year.

During the year, the duty of preparing and auditing claims for burial expenses for honorably discharged, deceased soldiers, sailors and marines from the army and navy of the United States, who were residents of the City of New York, as well as the deceased widows of such soldiers, sailors and marines, which devolves upon the Department of Health, made necessary the preparation of vouchers calling for the sum of ten thousand six hundred and twenty dollars (\$10,620), which were forwarded to the Department of Finance for payment. This embraces two hundred and sixteen deaths which occurred in the four counties comprising the City of New York.

Respectfully submitted,

EUGENE W. SCHEFFER, Secretary.

REPORT OF CORPORATION COUNSEL FOR THE YEAR 1909.

Violations forwarded to the Assistant Corporation Counsel for civil actions year ending December 31, 1909:

	New York.	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.
Violations Received—						
Violations pending January 1, 1909	1,074	465	155	543	241	5
Violations received and notices sent	75,754	6,600	2,455	4,754	3,041	637
Total violations	76,828	7,065	2,610	5,297	3,282	642
Disposition—						
Completed with before suit	15,543	6,200	1,100	5,055	1,000	445
Suit begun	120	1	10	1	1	77
Pending violations since December 31, 1909, and awaiting instructions by Department of Health	1,000	156	200	151	140	15
Total violations	16,663	6,357	1,110	5,207	1,141	537

Civil Actions brought by the Assistant Corporation Counsel year ending December 31, 1909:

	New York.	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.
Actions begun—						
Civil actions pending January 1, 1909	15	3	2	1	5	4
Civil actions begun to recover penalties on violations	111	7	11	1	3	72
Other civil actions begun	11	17	—	—	—	2
Judgments vacated	20	4	1	1	2	39
Total suits	157	27	14	3	10	97
Disposition—						
Discontinued, compliance secured	125	10	15	5	5	27
Judgments recovered	11	2	—	—	2	6
Judgment for defendant	3	3	1	—	1	—
Pending December 31, 1909	17	12	2	1	2	14
Total suits	156	27	18	6	10	97
Amount of costs, penalties and judgments collected in civil actions and paid to Secretary of Board	\$377 00	\$215 50	\$4 50	\$50 00	—	\$73 00
Amount of claims collected before and after suit for anti-domin and virus and paid to Secretary of Board	170 64	130 64	—	—	—	—

Report of Corporation Counsel.

Criminal actions in Magistrates' Courts year ending December 31, 1909:

	New York.	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.
Cases—						
Pending January 1, 1909, in Magistrate's Courts	27	5	10	2	6	4
New cases in Magistrate's Courts..	6,290	4,662	284	1,199	121	24
Total cases	6,317	4,667	294	1,201	127	28
Disposition—						
Held for Special Sessions.....	1,134	614	59	423	29	9
Held for General Sessions.....	11	10	1	..	..	..
Discharged.....	897	628	118	73	60	18
Fined.....	3,857	3,406	111	330	10	..
Sentence suspended	361	..	..	361	..	..
Appealed .....	..	..	..	..	..	..
Pending December 31, 1909.....	57	9	5	14	28	1
Total cases.....	6,317	4,667	294	1,201	127	28
Amount of fines	\$5,053 56	\$4,511 81	\$122 25	\$396 50	\$23 00	....

Criminal action in Court of Special Sessions year ending December 31, 1909:

	New York.	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.
Cases—						
Pending January 1, 1909.....	273	10	30	222	6	5
Transferred from Magistrate's Courts.....	1,134	624	49	423	29	9
Total cases.....	1,407	634	79	645	35	14
Disposition—						
Discharged.....	214	22	....	156	2	4
Fined.....	722	485	43	174	16	4
Sentence suspended	322	88	6	217	5	6
Jail sentence.....	5	4	....	1	....	....
Appealed	3	....	....	3	....	....
Pending December 31, 1909.....	141	35	30	64	12	....
Total cases.....	1,407	634	79	645	35	14
Amount of fines imposed	\$13,421 00	\$8,375 00	\$715 00	\$3,761 00	\$530 00	\$40 00

One appeal from a conviction for violation of Section 183 of the Sanitary Code was received, or as a fine was imposed and credited, it is not included in this table.

Report of legal work continued, being a comparison of fines and including the more important cases:

Pursuant to the provisions of the Greater New York Charter, Section 1241, Chapter 466, Laws of 1901, 609 applications were received to record in a special book for such purpose the births of children, which, through the neglect of the physician or other medical attendant present at such birth, were never filed with the Department of

Health. Great care must be exercised in the examination of these various petitions, in order to ascertain whether the applicants have strictly complied with the provisions of the statute.

Special attention is called to the aggressive action of the Department in prosecuting violators of the Sanitary Code in the Courts of Special Sessions throughout the city, as shown by table hereto annexed. These fines were imposed largely for food adulteration, and aggregated \$13,421. as against \$8,128 in 1908. The increase is most apparent in the Borough of Brooklyn where from \$805 in 1908 the fines increased to \$3,761 in 1909. As there were only about the number of defendants fined in the latter year as against the former, a material increase is also evident in the average fine imposed. In the Borough of Manhattan the fines imposed amounted to \$8,375 in 1909, as against \$6,423 in 1908. In the Borough of The Bronx the fines increased from \$385 in 1908 to \$715 in 1909, while in the Borough of Queens they increased to \$530 in 1909 from \$355 in 1908. The only decrease is shown in the Borough of Richmond, where the fines diminished from \$160 in 1908 to \$40 in 1909, which was due to the fact that there were less prosecutions in 1909 than in 1908, and the cases brought were for less flagrant violations.

CERTAIN DECISIONS OF IMPORTANCE.

Department of Health vs. Isadore Greenberg—Isadore Greenberg of No. 48 Cook Street, Borough of Brooklyn, City of New York, was convicted in the Court of Special Sessions, Second Division, on May 27, 1909, for a violation of Section 68 of the Sanitary Code, and sentenced to pay a fine of \$10. or, in default, to imprisonment in the City Prison for five days.

Greenberg was a candy jobber, who supplied small stores in the Borough of Brooklyn with candy. The proof upon which he was convicted showed that the candy sold by him contained sulphurous acid. He carried his case to the Appellate Division of the Supreme Court, Second Judicial Department, and the judgment of conviction was unanimously affirmed at the November, 1909, term of the said Court, Mr. Justice Jenks writing the opinion, which is set forth in full as follows:

"The appellant was convicted of a violation of the Sanitary Code of the Board of Health of the City of New York, in that he did have and offer for sale certain confections that contained sulphurous acid, an ingredient deleterious and detrimental to health, and in particular in violation of the 68th Section of the said Code, that provides:

"Sec. 68. No person shall have, sell or offer for sale in The City of New York, any food which is adulterated or misbranded. The term food as herein used shall include every article of food and every beverage used by man and all confectionery. Food, as herein defined, shall be deemed adulterated: * * * (g) If, in the case of confectionery, it contains terra alba, barytes, talc, chrome yellow, or other mineral substance or poisonous color or flavor, or other ingredient deleterious or detrimental to health; or any vinous, malt or spiritous liquor or compound or narcotic drug."

Report of Corporation Counsel.

" He was sentenced to pay a fine of \$10 or in default to imprisonment in the City Prison for 5 days.

" It is urged against the judgment that the mere possession of such confections is not an offense under this section and that there was no proof that the defendant had the confections for sale or offered them for sale. Buckley, an inspector, testified that he visited certain premises where the defendant carried on a 'candy jobber' business, that he saw the defendant at his place of business, informed him that the witness was an inspector come to examine his candies, that he examined a number of candies in boxes and took six samples thereof, that he paid the defendant ten cents for the six samples which were taken and delivered to the Chemist of the Health Department. The witness further testified that he asked how much he owed to the defendant for these samples, whereupon the defendant 'told me ten cents, and I paid him ten cents.' And the witness asked how much he owed for the confections, and the defendant named a price which was paid and accepted, this transaction was a voluntary sale, unaffected by the circumstance that it was made to a buyer who theretofore had said that he was an inspector who desired to examine his candies. Moreover, we think that the record justifies the conclusion that the defendant had for sale or was offering for sale these confections. They were taken from the confections kept in the defendant's place of business. The defendant admits that he was a 'jobber' of candy, that he sold candies to the stores, that he had purchased these candies from a manufacturer and that he had them at his place of business. There was no contention that these confections from which the samples were taken were bought for consumption by the defendant or for any other use outside of his business of resale.

" It is further contended that the said Section 68 does not apply to 'candy jobbers' in that the criminal intent is a necessary part of the crime. The provision in its terms applies to a candy jobber, if he be a person who sells or offers for sale, and such, we understand, is the business of a 'jobber'—in other words, a middleman? As we read the provision, intention is not an element of the offense, and it is not essential that it should be. (*People vs. Kibler*, 106 N. Y., 321; *People vs. Werner*, 174 N. Y., 132.) The Legislature has seen fit to constitute the act itself the offense. If the statute seems severe in isolated cases of which the one at bar may well be an example, if the uncontradicted contention of the defendant be true that he was deceived by the manufacturer, the courts have no powers of remission, limitation or multiplication in the face of the plain language of the statute. Such legislation has been justified by the paramount purpose to preserve the public health because experience has taught that if such statutes make intention to deceive and to defraud an essential part of the offense, they are of 'little use and rarely accomplish their purpose.' (*People vs. Kibler*, *supra*, at page 324.)

"The judgment must be affirmed."

The case was an important one, as it affected the sale of a commodity consumed mostly by children and settled the law on the subject,

which will undoubtedly put an end to the nefarious practice of selling candy containing the ingredient so injurious to children.

Department of Health vs. Louis Goldfarb.—Louis Goldfarb, a milk dealer, doing business at 138 Norfolk street, Borough of Manhattan, was found guilty of selling adulterated cream in violation of Section 57 of the Sanitary Code, in the Court of Special Sessions, First Division, on August 16, 1909, and sentenced to pay a fine of \$150 and to serve five days in the City Prison.

In pronouncing sentence the Presiding Justice said:

"It's criminal enough to poison grown people, but it is a tragedy to furnish poison for the innocent little babies who are defenseless against such conscienceless men as you are. You would rather add the scant margin of profit made by adulterations and indifferent cleansing of your cans to your already large profits than guard against the deaths of these children, whose health should be your care as good citizens. Yours is a despicable offense, and I can find no excuse for your pleas of not knowing the law sufficiently. Your conscience should supply this knowledge."

CERTAIN CONVICTIONS OF IMPORTANCE.

Department of Health vs. Philip Friedman.—On May 20, 1909, Philip Friedman, of No. 151 Tompkins Avenue, Borough of Brooklyn, City of New York, was convicted in the Court of Special Sessions, Second Division, City of New York, of violating Section 42 of the Sanitary Code of the City of New York, and sentenced to serve sixty days in the City Prison.

Friedman was a baker doing business at the above address. On January 27, 1909, an Inspector of Foods of the Department of Health visited his premises and found about thirty quarts of liquid eggs in a state of putrefaction. Liquid eggs are used in the manufacture of bread and cake, and it was indeed fortunate that the Inspector arrived in time to prevent these unwholesome eggs from finding their way into bread and cake, where their identity would be lost.

Friedman served thirty days and was finally released on bail on a certificate of reasonable doubt. The case is now pending on appeal and will be heard by the Appellate Division of the Supreme Court, Second Department, at the March term of said Court.

Department of Health vs. Herman Katz.—The defendant, Herman Katz, was a wholesale dealer in eggs, doing business at 143 Moore Street, Borough of Brooklyn, City of New York. On the 20th day of January, 1909, an Inspector of Foods of the Department of Health visited said premises and found twenty dozen bad eggs, in violation of Section 42 of the Sanitary Code.

The said Katz was tried in the Court of Special Sessions, Second Division, City of New York, on the 20th day of May, 1909, and found guilty and sentenced to serve sixty days in City Prison.

Motion for a certificate of reasonable doubt was made before Mr. Justice Jaycox, at a Special Term of the Supreme Court, Kings

Report of Corporation Counsel.

County, and was argued on May 27, 1909, the said Justice denying the motion.

On May 25, 1909, the Department was served with notice of appeal, but, as the same was never perfected, the said defendant served his full term in prison.

Department of Health vs. Victor Mitterstein.—On September 13, 1909, Victor Mitterstein of 239 East 10th Street, Borough of Manhattan, was found guilty by the Court of Special Sessions, First Division, City of New York, of selling adulterated cream, in violation of Section 57 of the Sanitary Code, and sentenced to serve three days in the City Prison.

Department of Health vs. Emil Jeremaier.—On June 21, 1909, Emil Jeremaier, a meat dealer, doing business in the Borough of Manhattan, was found guilty by the Court of Special Sessions, First Division, City of New York, of selling chopped meat which contained sulphurous acid, in violation of Section 68 of the Sanitary Code, and sentenced to serve ten days in the City Prison.

Department of Health vs. Louis Waldman.—On June 21, 1909, Louis Waldman, a candy dealer, doing business in the Borough of Manhattan, was found guilty by the Court of Special Sessions, First Division, City of New York, of selling candy which contained sulphurous acid, in violation of Section 68 of the Sanitary Code, and sentenced to serve ten days in the City Prison.

Department of Health vs. Samuel Klein.—On April 21, 1909, Samuel Klein, of 309 East 10th Street, Borough of Manhattan, was convicted in the Court of Special Sessions, First Division, of a violation of Section 125 of the Sanitary Code, for leading a horse affected with glanders through a public thoroughfare, and sentenced to pay a fine of \$25.

MISCELLANEOUS ACTIONS.

Patrolman Crawford, of the Sanitary Squad, detailed to the Department of Health, Borough of Brooklyn, shot and killed a dog which was running at large on the public highway. The owner of the dog, one Irving W. Lovejoy, residing on Ocean Parkway, Borough of Brooklyn, procured a summons for the said Crawford to appear at the Seventh District Magistrate's Court, Borough of Brooklyn, to answer to the charge of cruelty to animals.

On the return day, an Assistant Corporation Counsel appeared for the defendant and informed the Court that the said patrolman was acting under orders from the Department, in accordance with a resolution passed by the Board of Health, declaring that dogs running loose and at large and unmuzzled were a public nuisance. Proof of the power of the Board of Health to pass such a resolution and to enforce the provisions thereof within the limits of the City of New York was also presented. Counsel for the plaintiff, thereupon withdrew the summons and the action was dismissed.

Special reference has already been made to certain actions in which the defendants were sentenced to serve a term in prison. In addition thereto, the synopsis herewith appended has been compiled, showing a

Report of Corporation Counsel.

few of the more important convictions obtained by the Department in the various Courts of Special Sessions throughout the City. In all the cases mentioned therein, fines were imposed, in default of payment of which, in any instance, the defendant would be compelled to serve a stated number of days in the City Prison in accordance with the sentence of the Court.

Certain of the more important convictions in which the amount of fine imposed exceeded the sum of \$25, for violations of Section 42 of the Sanitary Code, which provides as follows:

"No meat, fish, eggs, birds, fowl, fruit, vegetables, or milk not being then healthy, fresh, sound, wholesome, and safe for human food, nor any meat or fish that died by disease or accident, shall be brought into the City of New York, or offered or held for sale as such food anywhere in said city, nor shall any such articles be kept or stored therein."

1909.

February	1	Lipsky, Samuel	Fined \$50.00
April	1	Miller, James	" 100.00
May	17	Anderson, Harry	" 35.00
May	27	Lebewitz, Israel	" 100.00
June	28	Diamond, Abraham	" 50.00
July	13	Levy, Jules	" 100.00
August	10	Abramowitz, Louis	" 100.00
September	20	Zahn, Philip	" 35.00
October	14	Fader, Jacob	" 50.00
October	21	Tobak, Edward	" 50.00

Certain of the more important convictions in which the amount of fine imposed exceeded the sum of \$25, for violation of Sections 52 and 53 of the Sanitary Code, which provides as follows:

"Sec. 52. No person shall have at any place where milk, butter or cheese is kept for sale, nor shall at any place sell, deliver, or offer, or have for sale, or keep for use, nor shall any person bring or send to said city any unwholesome, watered or adulterated milk, or milk known as 'swill-milk,' or milk from cows or other animals that for the most part have been kept in stables or that have been fed in whole or in part on swill, or milk from sick or diseased cows or other animals, or any butter or cheese made from any such milk, or any unwholesome butter or cheese.

"Sec. 53. No milk which is watered, adulterated, reduced or changed in any respect by the addition of water or other substance, or by the removal of cream, shall be brought into the City of New York or held, kept, sold or offered for sale at any place in said city; nor shall any one keep, have, sell or offer for sale in the said city any such milk."

1909.

February	15	Tuthill, James H.	Fined \$35.00
March	1	Urwitz, Annie	" 30.00
"	1	Wang, Louis	" 50.00

Report of Corporation Counsel.

1909.			
March	1.....	Reich, Samuel.....	Fined 30.00
April	5.....	Bernitt, Hy. G.....	" 30.00
"	8.....	Wulf, Jacob.....	" 100.00
"	15.....	Hocker, Hyman.....	" 50.00
"	15.....	Rothman, Leopold.....	" 100.00
May	3.....	Wolinsky, Rosie.....	" 35.00
"	13.....	Sobler, Meyer.....	" 50.00
"	17.....	Anelworth, Vitus.....	" 50.00
"	17.....	Reich, Samuel.....	" 75.00
"	20.....	Frangheau, Isidore.....	" 50.00
"	27.....	Hoffman, Christopher.....	" 50.00
June	7.....	Weissberg, Herman.....	" 50.00
"	7.....	Morrison, David.....	" 50.00
"	7.....	Knoller, William.....	" 75.00
"	21.....	Kastink, Morris.....	" 35.00
"	28.....	Goldberg, William.....	" 100.00
July	15.....	Israel, Julius.....	" 100.00
"	26.....	Nicosia, Benjamin.....	" 35.00
"	26.....	Weber, Robert.....	" 50.00
August	5.....	Ambrasins, Mary.....	" 30.00
"	9.....	Ginnta, Samuel.....	" 150.00
"	16.....	Kelly, Joseph.....	" 75.00
"	17.....	Mulloy, James F.....	" 100.00
"	19.....	Hill, Henry.....	" 50.00
"	23.....	McGann, Frank.....	" 50.00
"	30.....	Rubenfield, Charles.....	" 50.00
Sept.	23.....	Di Candio, Gilardo.....	" 250.00
October	5.....	Dittmar, Michael.....	" 50.00
"	14.....	Raucher, Sarah.....	" 50.00
"	18.....	Plock, Abraham.....	" 50.00
"	18.....	Grossman, Hyman.....	" 30.00
"	21.....	Breakstone, Jacob.....	" 100.00
November	22.....	Blumber, William.....	" 100.00
December	6.....	Haase, Herman.....	" 75.00

Certain of the more important convictions in which the amount of fines imposed exceeded the sum of \$25 for violations of Section 57 of the Sanitary Code, which provides as follows:

"No cream which is adulterated shall be brought into the City of New York, or held, kept, sold, or offered for sale in said city, nor shall any one keep, have, sell or offer for sale in said city any such cream. * * *"

1909.			
April	1.....	Bard, Dora.....	Fined \$35.00
"	20.....	Lubitz, Max.....	" 35.00
Aug.	16.....	Sauter, George.....	" 50.00
Oct.	4.....	Hamm, David.....	" 75.00
Dec.	23.....	Cohen, Philip.....	" 50.00

Report of Corporation Counsel.

Certain of the more important convictions in which the amount of fine imposed exceeded the sum of \$25.00, for violation of Section 68 of the Sanitary Code, which provides as follows:

"No person shall have, sell or offer for sale in the City of New York, any food which is adulterated or misbranded. The term food as herein used shall include every article of food and every beverage used by man and all confectionery."

1909.

Feb. 15	Kehl, Andrew	Fined \$100.00
April 1	May, Max	" 50.00
" 8	Melinsky, Harris	" 50.00
June 7	Lerner, Barney	" 50.00
" 7	Kurtin, Max	" 50.00
" 28	Panzer, J.	" 30.00
" 28	Lagattuta, Nicola	" 30.00
Aug. 23	Krausher, Edward	" 250.00
Sept. 30	Schactner, Samuel	" 35.00

Certain of the more important convictions in which the amount of fine imposed exceeded the sum of \$5.00, for violations of Section 183 of the Sanitary Code, which provides as follows:

"It shall be the duty of all persons having in their possession bottles, cans or other receptacles containing milk or cream, which are used in the transportation and delivery of milk or cream, to clean or cause them to be cleaned immediately upon emptying * * *."

1909.

Jan. 4	Fischler, Herman	Fined \$10.00
" 4	Epstein, Ellis	" 10.00
Feb. 15	Friedman, George	" 15.00
" 15	Bartolatta, Louis	" 15.00
" 15	Levy, Rosie	" 10.00
" 15	Melicoso, Jacob	" 10.00
Mar. 15	Miller, Sarah	" 10.00
Apr. 19	Hornick, Max	" 10.00
" 19	Cohen, Fannie	" 10.00
May 2	Herskovitz, Nathan	" 10.00
" 10	Hornick, Max	" 10.00
" 17	Weber, Charles	" 10.00
June 7	Baer, Max	" 10.00
" 7	Mann, Joseph	" 10.00
" 7	Solowey, Harry	" 10.00
" 7	Spillholtz, Samuel	" 10.00
" 28	Ephron, Quat	" 10.00
Aug. 16	Rauch, John	" 10.00
Sept. 27	Gillman, Harris	" 10.00
Oct. 4	Antes, Henry	" 10.00
Nov. 15	Moseman, Charles J.	" 10.00
Dec. 2	Belmont, Henry	" 10.00

Report of Corporation Counsel.

It will be observed, upon examination of the above list, that the defendants mentioned therein were convicted for violating the provisions of the sections of the Sanitary Code, which have reference to the adulteration of foods. In addition thereto, many other actions were successfully prosecuted in the various criminal courts throughout the city for violations of many other sections of the said Code. In the majority of these cases nominal fines were imposed, and the imposition of these fines had the effect of preventing repetitions of the offenses.

CIVIL ACTIONS.

Many actions were begun against various defendants to recover a penalty for a failure to comply with the provisions of orders and notices issued by the Department of Health. In the great majority of these cases the action was discontinued for the reason that the defendant subsequently fully complied with the requirements of the said order or notice.

A brief summary of some of the more important civil actions, other than those already mentioned, is herewith submitted.

Department of Health vs. John Rumore.—This was an action brought to recover penalties aggregating the sum of \$100 for violating sections 141 and 165, respectively, of the Sanitary Code.

The defendant, an undertaker, in business at No. 2089 Second avenue, Borough of Manhattan, had charge of the funeral of one Francis D'Arrigo, a child one year and two months of age, who died of measles at No. 344 East One Hundred and First street, Borough of Manhattan. The said undertaker failed to enclose the said body in a properly constructed casket, and also put up funeral decorations in the apartments of the deceased, in violation of the provisions of section 141 of the Sanitary Code. He allowed the said body to remain unburied more than twenty-four hours after death, in violation of section 165 of the Sanitary Code.

A criminal action had previously been brought against the said John Rumore, for violation of the above mentioned sections of the Sanitary Code. The Magistrate presiding held that it was necessary to show that the said undertaker had personal knowledge of the disease and its contagious character. The complaint was therefore dismissed.

As a result of the said decision, the above-mentioned civil action was begun against the said defendant, inasmuch as his liability for the penalty prescribed was in no way affected by knowledge or intent upon his part.

The Department consented to the settlement of said action upon the defendant paying a penalty of \$25.

Department of Health vs. Alfred W. Herzog.—This action was brought to recover of defendant, a practicing physician in the City of New York, a penalty in the sum of \$50, for a violation of section 133 of the Sanitary Code, in that the defendant had failed to report to the Department of Health a case of diphtheria within twenty-four hours after said case was first observed by said physician.

The action was tried in the Municipal Court, Sixth District, Borough of Manhattan, City of New York, and resulted in a judgment being rendered for the Department of Health for the sum of \$25, together with the costs of said action.

The defendant paid the full amount of said judgment, in settlement of the above-mentioned action.

Department of Health vs. Abraham J. Levitas and Henry B. Levitas.—This was an action in conversion to recover the sum of \$23.40 due the Department of Health for antitoxin, consigned and delivered to the said defendants at the drug store, No. 1399 Madison avenue, Borough of Manhattan, at which premises an antitoxin station had been established by the said Department.

The defendants paid the full amount of said claim in settlement of the above-mentioned action.

Department of Health vs. John J. Benson.—This was an action in conversion, instituted on behalf of the Department of Health against John J. Benson, a druggist, conducting business at the corner of Columbus avenue and Seventy-second street, Borough of Manhattan, to recover from the said defendant the sum of \$3.91 due to the said Department for Laboratory supplies.

The defendant paid the full amount, \$3.91, in settlement of said action.

Department of Health vs. Isaiah Lewin.—This was an action in conversion instituted by the Department to recover of the said defendant the sum of \$89.98 due to the said Department for antitoxin and virus delivered to the said defendant at drug store owned by him at No. 130 Rivington street, Borough of Manhattan, at which premises an antitoxin station had been established by the Department.

The defendant paid the full amount of said claim in settlement of said action.

Department of Health vs. Abraham Lightstone.—The above action was instituted against the said defendant, a physician, of No. 268 Willis avenue, Borough of The Bronx, for a violation of section 161 of the Sanitary Code, in that he failed to report the birth of one Lillian Gardner, born October 7, 1909.

The Department consented to the settlement of said action upon the said defendant paying a penalty of \$25.

Department of Health vs. Joseph H. Mittelman.—This was an action brought against the said defendant, a practicing physician, of No. 116 Columbia street, Borough of Manhattan, to recover penalties aggregating the sum of \$150, for three violations of section 133 of the Sanitary Code, in that he failed to report to the said Department three cases of scarlet fever, occurring at No. 97 Cannon street, Borough of Manhattan, which he attended professionally.

The said defendant paid the full amount, \$150, together with the costs, in settlement of said action.

Department of Health vs. Quillas A. Meyers.—This was an action in conversion instituted against Quillas A. Meyers, a druggist, of Lexington avenue and One Hundred and Thirteenth street, Borough of

Report of Corporation Counsel.

Manhattan, for failure to pay the sum of \$19.53 due the Department for laboratory products disposed of by him.

The said defendant settled the above action by paying the sum of \$13.45 in cash, and also furnishing free antitoxin slips, properly filled out and signed, equal to the balance of \$6.08.

Supreme Court,

Appellate Division, Second Judicial Department.

Woodward, Jenks, Burr, Rich and Miller, JJ.

THE PEOPLE OF THE STATE OF NEW YORK,
Respondents,

against

ISIDOR GREENBERG,

Appellant.

} November Term, 1909.

Appeal by the defendant from a judgment of conviction of the Court of Special Sessions of Kings County rendered on the 27th day of May, 1909.
Jenks, J.—

The appellant was convicted of a violation of the Sanitary Code of the Board of Health of The City of New York, in that he did have and offer for sale certain confections that contained sulphurous acid, an ingredient deleterious and detrimental to health, and in particular in violation of the sixty-eighth section of the said Code, that provides: "Sec. 68. No person shall have, sell or offer for sale in the City of New York any food which is adulterated or misbranded. The term food as herein used shall include every article of food and every beverage used by man and all confectionery. Food, as herein defined, shall be deemed adulterated * * * (g) If, in the case of confectionery, it contains terra alba, barytes, talc, chrome yellow or other mineral substance or poisonous color or flavor, or other ingredients deleterious or detrimental to health, or any vinous, malt or spirituous liquor or compound or narcotic drug." He was sentenced to pay a fine of ten dollars or in default to imprisonment in the City Prison for five days.

It is urged against the judgment that the mere possession of such confections is not an offense under this section and that there was no proof that the defendant had the confections for sale or offered them for sale. Buckley, an inspector, testified that he visited certain premises where the defendant carried on a "candy jobber" business, that he saw the defendant at his place of business, informed him that the witness was an inspector come to examine his candies, that he examined a number of candies in boxes and took six samples thereof, that he paid the defendant ten cents for the six samples which were taken and delivered to the Chemist of the Health Department. The witness fur-

ther testified that he asked how much he owed to the defendant for these samples, whereupon the defendant "told me ten cents, and I paid him ten cents." As the witness asked how much he owed for the confections, and the defendant named a price which was paid and accepted, this transaction was a voluntary sale, unaffected by the circumstances that it was made to a buyer who theretofore has said that he was an inspector who desired to examine his candies. Moreover, we think that the record justifies the conclusion that the defendant had for sale or was offering for sale these confections. They were taken from the confections kept in the defendant's place of business. The defendant admits that he was a "jobber" of candy, that he sold candies to the stores, that he had purchased these candies from a manufacturer and that he had them at his place of business. There was no contention that these confections from which the samples were taken were bought for consumption by the defendant or for any other use outside of his business of resale. It is further contended that the said section 68 does not apply to "candy jobbers" in that the criminal intent is a necessary part of the crime. The provision in its term applies to a candy jobber, if he be a person who sells or offers for sale, and such, as we understand, is the business of a "jobber"—in other words, a middleman. As we read the provision, intention is not an element of the offense, and it is not essential that it should be. (*People vs. Kibler*, 106 N. Y., 321); *People vs. Werner*, 174 N. Y., 132). The Legislature has seen fit to constitute the act itself the offense. If the statute seems severe in isolated cases of which the one at bar may well be an example, if the uncontradicted contention of the defendant be true that he was deceived by the manufacturer, the courts have no powers of remission, limitation or multiplication in the face of the plain language of the statute. Such legislation has been justified by the paramount purpose to preserve the public health because experience has taught that if such statutes make intention to deceive and to defraud an essential part of offense, they are of "little use and rarely accomplish their purpose." (*People vs. Kibler*, *supra*, at page 324).

The judgment must be affirmed.

Court of General Sessions.

New York County.

THE PEOPLE OF THE STATE OF NEW YORK

against

ABRAHAM KORN.

This is an appeal from a decision of Magistrate Peter T. Barlow, rendered on the 17th day of December, 1907, at the City Magistrates' Court, First Division, Third District, finding the defendant guilty of a violation of section 108 of the Sanitary Code. The defendant, upon his conviction, was fined two dollars.

Report of Corporation Counsel.

That portion of the section which the defendant is charged with violating provides:

"And it shall be the duty of every owner, lessee or agent of any such building or place of business to cause to be separated and put into their respective receptacles all such materials and substances (ashes, garbage and refuse) and such receptacles shall not be filled to within four inches of the top thereof."

This ordinance was reasonable. No contention to the contrary is made. The Board of Health had the power to make it by virtue of section 1223 of the Greater New York Charter, and the Legislature had the power to enact the section of the Charter referred to.

Any violation of the Sanitary Code is made a misdemeanor by section 1222 of the Charter. The evidence before the Court sustained the charge of Jeremiah Perkins, a police officer detailed to the Street Cleaning Department, to the effect that he visited the premises in question, No. 131 East Broadway, on December 6, 1907, at about one o'clock in the afternoon, and that he found in a certain can in front of said premises ashes and garbage mixed. It was further in evidence that the defendant was the owner and personally in charge of the premises in question (S. M., p. 6).

Motion was made to dismiss on the ground that it did not appear that the defendant personally mixed the ashes and garbage, or that the employee of the defendant, being the janitor of the premises, personally mixed the ashes and garbage, and therefore it did not appear that the defendant failed to cause the ashes and garbage to be separated and put in different receptacles. The motion was denied and an exception taken.

The can in question appears to have been at the time of inspection in the area or within the stoop line of the premises, but it does not appear how long it had been there. It is now urged upon appeal that it would be an improper construction of the section in question to hold that the owner is at his peril obliged to see to it that ashes and garbage are not mingled in a receptacle while the receptacle is within the areaway or within the stoop line of his premises.

It is practically urged that the responsibility of the owner for the condition of the receptacle ceases after he has placed it outside of the building and within the areaway. This contention, if sustained, would incorporate a qualifying clause into the ordinance and, in my judgment, would do much to destroy its utility. In the view that I take of the ordinance, the defendant was chargeable with the duty of causing the ashes and garbage to be placed in separate receptacles. The law provided that he might discharge this duty through another, but if he sought to delegate the performance of the duty to another, he took the risk of being held liable for a violation of the law in the event that that other failed to discharge the duty.

Judgment affirmed.

Dated New York the 4th day of February, 1908.

THOS. C. T. CRAIN,

Judge, Court General Sessions.

PEOPLE <i>ex rel.</i> CHARLES F. BANDEL	}
against	
THE DEPARTMENT OF HEALTH OF THE CITY OF NEW YORK.	

Application for a mandamus to compel the Board of Health to register the relator as a physician. The motion was argued before Mr. Justice Dickey of the Supreme Court, Second Department, and in granting the motion Judge Dickey rendered the following opinion:

"Before any recognition by statute was given to the practitioners of osteopathy, section 153 of the Public Health Laws had a provision making it a misdemeanor for any one to 'practice medicine' without license and lawful registration, and one was prosecuted and convicted under this act. On his appeal, it was held, 117 Appellate Division, 546, that one not licensed to practice medicine, who advertised himself as a doctor, who takes payment and consultations, was properly convicted of a violation of the statute, although he administered no medicine or used no surgical instruments.

"So it seems that the practice of medicine does not consist of merely administering drugs or the use of surgical instruments. The Courts say 'the day has passed when it is thought that a physician's advice was of no use unless he ordered a dose of medicine.' By chapter 344 of the Laws of 1905 what was meant of practitioners of medicine was clearly defined with these words: 'A person practices medicine within the meaning of this act, except as hereinafter stated, who holds himself as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition and who shall either offer or undertake by any means or method to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition.'

"By this same act osteopathy is recognized and its practice is regulated with the provision for admission to practice for those qualified. In my opinion, the lawmakers intended to and do make osteopaths practitioners of medicine, and also make them physicians, because subdivision 8 of section 1 of this act says that a physician means a practitioner of medicine. It is claimed that the practice of osteopathy first began in the State of Missouri, and by the statutes of that State it is specifically provided that osteopathy is not the practice of medicine. It was in the power of our legislators to make a similar provision, but they did not do so. On the contrary, they defined the practice of medicine so that it must be interpreted to include the work done by the osteopaths in the practice of their profession.

"The Sanitary Code of this city provides the word physician shall include every person who practices about the cure of the sick and injured or who has charge of any person sick, injured or diseased.

"So it is clear to my mind that osteopaths are physicians and practice medicine, and except for restrictions put upon them by chapter 344 of the Laws of 1905, prohibiting them from administering drugs and performing surgery with the use of instruments, they are entitled

to all the rights and subject to all the privileges of other physicians and medical practitioners. The fact that their degree is O. D., instead of M. D., makes no difference, so far as to register and grant death certificates is concerned. The study required of them before their admission is of such general and extensive character as to fully fit them to certify as to the cause of death of a patient.

"Application for mandamus granted."

Supreme Court, Kings County, Joseph Cohen vs. the Board of Health of the City of New York—In the month of October, 1908, the plaintiff commenced an action against the Board of Health by reason of the refusal of the Board to grant a permit to slaughter chickens at 614 Flushing avenue, in the Borough of Brooklyn. The rules of the Department require the approval of a site at which to slaughter chickens and this approval must be first obtained; after approval of the site, plans and specifications of the building must be submitted to the Board for its approval; and when the plans and specifications have been approved and the building is erected, an inspection is made to determine whether the plans and specifications have been followed and the building erected in accordance therewith. Then a permit to slaughter chickens is granted in accordance with the requirements of the Code. In the present case Mr. Cohen did not have a site approved nor were plans and specifications approved nor was a permit obtained to slaughter chickens. Notwithstanding he proceeded to fit up a building at the premises aforesaid, although previously similar applications for a slaughter house on the same block had been denied. When he understood that the Department would not give him a permit to slaughter chickens, he commenced his present action and moved for temporary injunction. Mr. Justice Stapleton, who heard the motion, denied the same on November 22, 1908, and handed down the following opinion:

"The plaintiff moved for a temporary injunction restraining the defendant from interfering with the plaintiff in keeping, selling, slaughtering, storing and in otherwise disposing of poultry at 614 Flushing avenue, in Borough of Brooklyn.

"He alleges in his complaint that he made an application to the defendant, the Board of Health, for a permit to keep, sell and slaughter live poultry on premises, that the application was denied without notice and without giving him any hearing, that he complied with all the rules and regulations prescribed by the Board of Health, that he spent large sums of money fitting up his premises for the purpose of keeping, selling and slaughtering live poultry that the defendant intended instituting civil and criminal action against him, for the purpose of preventing him from carrying on the business for which he sought a permit. These are all the material allegations in his complaint.

"The acts sought to be enjoined are the prosecution of civil and criminal proceedings. The defendants present no answer to the complaint and submit no affidavits upon this motion. The plaintiff does not prove that the section of the Sanitary Code under which the defendants have the right to grant or control the permit. Ordinarily the Court could not take judicial notice of it. The Sanitary Code of the City of New York, however, was ratified and confirmed by the Legislature, by

chapter 135 of the Laws of 1880. Section 575 of the Laws of 1882, chapter 410, The Greater New York Charter (Laws of 1897, chapter 378, section 1172), and amended charter, Laws of 1901, chapter 466.

"Section 79, Sanitary Code, by the statute adopted and declared to be binding and in force, except as the same may, from time to time, be revised, altered or annulled, as provided in the Greater New York Charter as follows:

"No live chickens, geese, ducks, or other fowls shall be brought into or kept, or held, or offered for sale, or killed, in any yard, area, cellar, coop building, premises, or part thereof, or in any public market, or on any sidewalk, street or other place within the built-up portions of the City of New York, without a permit from the Board of Health and subject to the conditions thereof."

"The burden of showing change in its provisions after its adoption by the Legislature is therefore upon the plaintiff. Any violation of the Sanitary Code is a misdemeanor and pecuniary penalties for violation of its provisions may be provided for and recovered by Board of Health in a civil action. Greater New York Charter, section 1172. *People vs. Davis*, 78 App. Div., 571.

"The motion of the plaintiff therefore is an appeal to a court of equity to restrain public officers from enforcement of the criminal law. This appeal equity will not heed. *Delaney vs. Flood*, 183 N. Y., 323.

"The Court of Appeals in the case of the Metropolitan Board of Health *vs. Herster*, 37 N. Y., 661, 664, 672, reversed a judgment granting an injunction preventing the Board enforcing an order forbidding slaughtering cattle in a densely populated part of the City.

"This is not an application for an order enjoining the abatement of a nuisance involving the destruction of or injury to private property when a nuisance is fact and in law does not exist.

"If the action of Board of Health in refusing the plaintiff a permit was arbitrary, tyrannical or unreasonable he may have remedy by an alternative writ of mandamus. *People ex rel. Lodes vs. Board of Health*, 187 N. Y., 187, 194, 196.

"Motion for a temporary injunction must be denied.

"L. D. S., J. S. C."

Supreme Court, Kings County, John Hill vs. Thomas Darlington and Walter Bensel—This was an application made to the Court to show cause why the defendant should not be restrained from interfering with the occupancy of the tents erected on Surf avenue, Coney Island. The Board issued an order requiring certain things to be provided in and about the tents so that no nuisance might arise.

The orders were not complied with and the Board thereupon ordered the tents vacated. The plaintiffs on September 9, 1908, obtained an order to show cause returnable September 14, why the Department should not be prohibited from interfering with the tents, and in the meantime and until the hearing of the motion were granted a temporary injunction.

On the application of the Department of Health made on the 10th of September, the injunction was vacated on the ground that the Charter

Report of Corporation Counsel.

provides that no injunction shall be granted against the Department or any of its officers except upon five days' previous notice.

The motion under the order to show cause came on for hearing on the 15th. Judge Aspinall, before whom the motion was argued, denied the plaintiff's application and handed down the following opinion:

"*Supreme Court, Kings County, John Hill vs. Thomas Darlington, et al.*—The complaint alleges that the defendant Darlington is the Commissioner of Health and the defendant Bense is Sanitary Superintendent of the Board of Health of the City of New York. The acts complained of by the plaintiffs grew out of the official positions of these defendants. Section 1192 of the City Charter provides:

"Said Board of Health may sue and be sued in and by the proper name of the Department of Health of the City of New York, and not in or by the name of members of the said Board or any of them.

"This proceeding is therefore improperly brought. Motion denied without prejudice and without costs.

"J. ASPINALL, J. S. C.

"September 15, 1908."

REPORT OF THE BUREAU OF RECORDS.

POPULATION.

The estimated population of the city for the year 1909 was 4,564,792, this figure being obtained by assuming that the same *rate of increase* existing between the Federal Census year 1900 and the State Census of 1905 continued in operation through the years following. The rate of increase in the intercensal period of 1900-1905 and the resultant estimates of the borough populations are as follows:

Borough.	Annual Rate Per Cent. of Increase.	Estimated Population, July 1, 1909.
Manhattan	2.6901	2,354,576
The Bronx.....	6.2599	348,057
Brooklyn.....	3.0989	1,539,235
Queens.....	5.3178	244,947
Richmond.....	1.6809	77,977
City of New York	3.1539	4,564,792

This method of estimating the population has been in vogue in this Department for twenty-five years, and has been called the Registrar General's method, as followed in Great Britain for many years; it is a compounding of the population based upon geometrical progression, as compared with the ordinary or arithmetical method.

GENERAL STATISTICS.

BIRTHS.

There were 122,975 births reported during the year, against 126,862 in 1908, a decrease of 3,887, distributed among the boroughs as follows: Manhattan, 3,276; The Bronx, 31; Brooklyn, 412; Queens, 107, and Richmond, 61. In Manhattan the birth rate fell from 29.17 per 1,000 of the population in 1908 to 27.01 in 1909, a loss of 7 per cent.; in The Bronx the fall was from 29.32 to 27.51, a loss of 6 per cent.; in Brooklyn, from 28.07 to 26.96, a loss of 4 per cent.; in Queens, from 27.61 to 25.78, a loss of almost 7 per cent.; in Richmond, from 26.80 to 25.57, a loss of 5 per cent; in the greater city, from 28.68 in 1908 to 26.94 in 1909, a loss of 6 per cent.

By reason of the passage of a State law giving the Board of Health power to regulate the practice of midwifery in this city, and the promulgation of rules and regulations by the Board in 1908, it was thought that the percentage of births reported by midwives would

Report of the Bureau of Records.

be lower than in previous years, as a considerable number of permits to practise was refused to those not able to fulfil the requirements demanded. The result was that the number of births reported by midwives in 1908 fell from 55,652, representing 44 per cent. of all reported, to 49,616 births and 40 per cent. in 1909. It does not follow that this decline in the birth rate for the year 1909, compared with that of 1908, was due to the concealment of continued practise of midwifery upon the part of the former midwives who were refused licenses; a comparison of the nativities of the mothers, as shown in the table of births by nativities, page 220, with a similar table for the previous year, shows that the births to Italian, Russian, Polish and Austro-Hungarian mothers (by whom midwives are chiefly employed) showed exactly the same percentage of the total births reported as in the preceding year—that of the highest birth rate in the history of the city.

The following table shows the number of births reported and birth rates per one thousand of the entire population since the formation of the greater city in 1898; it must be borne in mind that the births of this city are not reported in their entirety, as some still escape registration by reason of the negligence of the medical attendant or midwife.

Births Reported and Birth-rates by Boroughs and City, 1898-1909.

Borough.	Number of Births.	Rate.	Number of Births.	Rate.	Number of Births.	Rate.
	1898.		1899.		1900.	
Manhattan	49,835	27.54	48,397	26.44	50,494	27.23
The Bronx.....	3,524	21.07	3,071	19.96	4,122	20.45
Brooklyn.....	21,395	15.54	21,203	18.73	22,572	19.34
Queens.....	2,826	20.62	2,943	20.27	3,084	20.07
Richmond.....	1,348	21.14	1,418	21.67	1,449	21.59
City of New York.....	78,928	24.12	77,632	23.13	81,721	23.71

	1901.		1902.		1903.	
Manhattan	49,990	26.25	52,291	26.74	56,078	27.93
The Bronx.....	4,023	18.79	5,220	22.94	6,053	25.03
Brooklyn.....	22,182	18.40	23,507	18.91	27,292	21.29
Queens.....	3,127	19.32	3,198	18.76	3,802	21.18
Richmond.....	1,413	20.71	1,428	20.58	1,530	21.68
City of New York.....	80,735	22.72	85,644	23.36	94,755	23.06

	1904.		1905.		1906.	
Manhattan	59,196	28.71	60,202	28.43	63,005	29.11
The Bronx.....	6,033	23.48	6,659	24.39	7,306	25.18
Brooklyn.....	28,859	21.89	30,972	22.73	34,538	24.59
Queens.....	3,871	20.48	4,355	21.87	5,050	24.08
Richmond.....	1,596	22.25	1,692	23.19	1,873	25.25
City of New York.....	99,555	25.52	103,880	25.81	111,772	26.91

Report of the Bureau of Records.

Births Reported and Birth Rates by Boroughs and City, 1908-1909—Continued.

	1907.		1908.		1909.	
Manhattan.....	65,771	29.46	66,875	29.17	63,599	27.01
The Bronx.....	8,487	27.53	9,005	29.32	9,574	27.51
Brooklyn.....	38,632	26.68	41,906	28.07	41,494	26.96
Queens.....	5,825	26.38	6,421	27.61	6,314	25.78
Richmond.....	2,005	26.59	2,055	26.80	1,994	25.57
City of New York.....	120,720	28.17	126,862	28.68	122,975	26.94

The number of reported births to native mothers was 39,771, or 32.4 per cent. of the total, and to foreign mothers 83,180, or 67.6 per cent., and of these latter 61,686, or 73 per cent., were to Italian, Russian, Polish and Austro-Hungarian mothers. Another view of relative fecundity of native versus foreign mothers may be had by calculating a birth rate per one thousand females at all ages according to their nativity, and it will be found that the preponderant proliferation of the foreign-born mother is even more evident.

Estimated number of native-born females.....	1,437,104
Number of births by native-born mothers.....	39,771
Birth rate per 1,000 native-born females at all ages.....	27.67
Estimated number of foreign-born females.....	805,835
Number of births by foreign-born mothers.....	83,187
Birth rate per 1,000 foreign-born females at all ages.....	103.23

For every four children born of native mothers, fourteen were born of foreign mothers; almost 73,000 of the births reported were to foreign mothers whose knowledge of the English language was extremely meagre; 25,173, or 20.5 per cent. of all births, were to Italian mothers; 25,131, or 20.4 per cent., Russian Polish; 11,372, or 9.2 per cent., to Austro-Hungarian; 8,091, or 6.6 per cent., to Irish; 5,124, or 4.2 per cent., to German, and 8,271, or 6.5 per cent., to other foreign.

As usual, the number of male births exceeded the female, the figures being 63,153 and 59,822, respectively; 1,938 colored and 17 yellow births were reported; 73,359 births were reported by physicians and 49,616 by midwives; 1,772 apparently illegitimate, 970 twin and 13 triple births were reported.

MARRIAGES.

There were 41,513 marriages reported in the entire city during 1909, against 37,499 in the year previous, an increase of 4,014. The marriage rate of 19.19 persons married per 1,000 during the year 1909 was an increase over that of 1908 by 2.23. In the latter year the effects of the enforcement of the Marriage License Law and the panicky financial conditions produced the lowest marriage rate since the formation of the greater city in 1898.

Report of the Bureau of Records.

The following table gives the number of marriages and rates reported by boroughs and city since 1898:

Borough.	Number of Marriages.	Rate.	Number of Marriages.	Rate.	Number of Marriages.	Rate.
	1898		1899.		1900.	
Manhattan	20,118	11.12	20,836	11.36	21,970	11.85
The Bronx.....	651	3.89	904	4.92	948	4.69
Brooklyn.....	7,129	6.51	7,612	8.48	8,214	7.04
Queens.....	636	4.64	710	4.89	768	5.00
Richmond.....	351	5.50	412	6.30	428	6.38
City of New York.....	28,885	8.83	30,474	9.07	32,247	9.30

	1901.		1902.		1903.	
Manhattan	22,895	12.02	24,766	12.67	25,911	12.00
The Bronx.....	1,067	4.80	1,227	5.03	1,354	4.76
Brooklyn.....	8,303	6.89	9,014	7.25	9,616	7.50
Queens.....	777	4.80	768	4.51	855	4.76
Richmond.....	495	5.93	432	6.23	435	6.21
City of New York.....	33,447	9.41	36,207	9.88	38,174	10.10

	1904.		1905.		1906.	
Manhattan	26,500	12.85	28,408	13.42	32,342	14.87
The Bronx.....	1,465	4.97	1,820	6.67	2,027	6.99
Brooklyn.....	10,019	7.61	10,778	7.91	11,666	8.51
Queens.....	921	4.67	1,092	5.48	1,420	6.77
Richmond.....	531	7.40	573	7.86	600	2.09
City of New York.....	39,436	10.11	42,671	10.60	48,355	11.64

	1907.		1908.		1909.	
Manhattan	33,829	15.15	23,944	10.44	26,689	11.33
The Bronx.....	2,268	7.36	1,639	5.00	1,770	5.08
Brooklyn.....	12,910	8.92	10,171	6.81	11,110	7.22
Queens.....	1,490	6.75	1,311	5.64	1,504	6.14
Richmond.....	594	7.88	434	5.66	440	5.64
City of New York.....	51,097	11.92	37,499	8.48	41,513	9.09

There were reported the marriages of 38,175 bachelors, 3,064 widowers and 274 divorced males to 38,770 spinsters, 2,404 widows and 339 divorced females, the spinsters outnumbering the bachelors by 595, the widowers the widows by 660, and the female divorcees the male by 65; there were 31,143 natives married as compared with 51,183 foreigners; 12,709 certificates were filed by Roman Catholic priests, 12,234 by Protestant ministers, 10,834 by Jewish rabbis, 24 by leaders of the Ethical Culture Society, and 5,712 by civil officials.

Report of the Bureau of Records.

DEATHS.

Comparison of the Mortality of the Year 1909 with that of Previous Periods.

The following table gives the populations, deaths and the death rates per 1,000 from all causes for the four decennia included in the years 1869-1908, and the year 1909, in the territory covered by the present Boroughs of Manhattan, The Bronx and Brooklyn, the Boroughs of Queens and Richmond being excluded by reason of the absence of complete mortality returns therein previous to the year of the formation of the greater city in 1898.

Periods.	Average Population.	Average Deaths.	Average Rates Per 1,000	Decrease Per Cent. from Previous Decennium.
1869-1878	1,470,562	39,128	26.61	..
1879-1888	1,084,800	50,452	25.42	4
1889-1898	2,713,660	62,818	23.15	9
1899-1908	3,602,706	67,877	18.84	19
1909	4,241,868	68,752	16.21	14

A glance at the table above shows that a continuous decrease in the rate has prevailed during the period covered, a decrease comparing the decennia in the order of arrangement corresponding respectively to 4, 9 and 19 per cent.; comparing the rate for the year 1909 with that of the immediately preceding decennium, a decrease of 14 per cent. is shown, and with that of the first decennium, a decrease of 39 per cent.; to put it otherwise, for every 100 persons who died in the first decennium mentioned only 61 died during 1909; or if the death rate ascribed to the decennium 1869-1878 be applied to the population of the three boroughs in the year 1909, then 112,876 persons would have died, whereas, the actual number of deaths was 68,752, a saving of 44,115 lives.

This tremendous reduction in the mortality is due to the vigilance upon the part of the health officials in seeking out preventable causes of death and applying remedies for their total extirpation when possible, and when not, the restriction of their activities to limited zones.

TYPHUS FEVER.

This dreaded contagious disease has entirely disappeared from the mortality reports during the past seventeen years, with the exception of that of 1898, when one death was reported in which the cause of death was stated as probable typhus fever, the correctness of the diagnosis being very much open to question. In January, 1892, the steamship "Massilia" arrived at this port, and landed 248 Russian Hebrews and over 400 Italians. Within a week typhus fever broke out among those housed in this city, and 138 cases were found among the immigrants; later, 114 cases developed among residents of the

Report of the Bureau of Records.

city, 31 of which latter were nurses, helpers and policemen; the total number of cases amounted to 241, with 45 deaths, a case mortality of 18 per cent.

The following table gives the deaths and rates for the decennia since 1868 and the individual years 1908 and 1909:

Period.	Number of Deaths.	Rate Per 10,000.
1868-1877	716	.50
1878-1887	317	.20
1888-1897	251	.10
1898-1907	1	....
1908 .....	....	....
1909 .....	....	....

ASIATIC CHOLERA.

In the year 1832 there were attributed 3,513 deaths to this cause, in 1834 there were 971 deaths reported, in 1849 the deaths numbered 5,071, in 1854 the number fell to 2,509, and in 1866—the year of the organization of the Board of Health—1,137 deaths; the deaths in decennial groups were as follows: 30 in 1868-1877, none in 1878-1887, 9 in 1888-1897, and none since 1892, when 9 deaths occurred.

SMALL-POX.

Out of every 100,000 of the population 48 died in the decennium 1868-1877, 7 in that of 1878-1887, 3 in that of 1888-1897, 2 in that of 1898-1907; one death was reported in 1908, and 2 in 1909; comparing the last decennium quoted with the first, a reduction of 95 per cent. has taken place. The number of deaths in the old City of New York, the decennium 1867-1876 amounted to 4,471, and of these 54 per cent. were under 15 years of age; during the succeeding *three* decennia the number of deaths amounted to 2,065, and of these 50 per cent. were under 15 years of age, that is, the combined deaths for thirty years, after the effects of free vaccination began to be felt, was 46 per cent. less than the total number of deaths in the previous ten years, not taking into consideration the more than doubling of the average population for the periods compared. Before 1876 this disease, constantly present, recurred every one or two years with greater intensity, the waves of recurrence lasting for two years; since that year the epidemics have been far milder and recurred at first every four years, with waves lasting two years, then a period of recurrence at the end of six years, with a wave lasting two years, and has not recurred for seven years, this last postponement of the recurring wave being due to the tremendous number of vaccinations performed in 1902 and 1903, amounting to 1,026,000.

As the immunity conferred lasts about six or seven years, it is advisable that a preventive campaign be begun next fall, in order that the number of non-immunes be reduced to a minimum.

Report of the Bureau of Records.

TYPHOID FEVER.

The following table gives the decennial rates from 1868-1907, and for the years 1908 and 1909:

Period.	Rate Per 100,000.
1868-1877	31
1878-1887	28
1888-1897	20
1898-1907	18
1908	12
1909	12

If we compare the rates for the years 1908 and 1909 with those of the previous periods, an immense reduction will be noticed, amounting to 61 per cent., comparing the first decennium with the year just passed. The physicians of the present day are far ahead of those of former years in the ability to diagnose typhoid fever as a disease clearly distinct from all others; the bacteriologist was unknown thirty or forty years ago; to-day he is the right-hand man of the busy practitioner, aiding him in his diagnoses of various diseases, tuberculosis, diphtheria, typhoid fever; we must admit that in the earlier decades of the administration of the Board of Health many causes of death were reported under headings that in recent years would mean rejection as insufficient or indefinite; for example, under the heading of typhoid fever 4,445 deaths were enumerated in the first decennium, and 3,626 under that of malarial fevers, while under the headings in the decennium 1898-1907 the figures were 6,349 and 1,112 respectively, the ratio of typhoid to malarial deaths in the first decennium being five to four, and in the last, twenty-four to four; there has been undoubtedly a considerable transference in recent years from the malarial death column to that of typhoid, and the designation of malaria as a cause of death is apt to be followed by a letter of inquiry as to the complications attendant upon the case, except in those pernicious types of malaria having origin in tropical latitudes. Well may we question the accuracy of the diagnoses of malarial fever forty years ago, and rightly may we consider the mortality from typhoid fever at that time as far below the actual!

MALARIAL FEVER.

In the following table the rates per 100,000 are shown for the decennia between 1868 and 1907, and for the individual years 1908 and 1909:

Period.	Rate Per 100,000.
1868-1877	26
1878-1887	30
1888-1897	18
1898-1907	3
1908	0.8
1909	0.9

Report of the Bureau of Records.

There were 40 deaths reported from malarial fevers during 1909, and many of these were of the pernicious type, contracted in tropical climates.

MEASLES.

The deaths and rates from this cause since 1868 were as follows:

Period.	Rate Per 100,000.
1868-1877	28
1878-1887	37
1888-1897	31
1898-1907	20
1908	23
1909	22

SCARLET FEVER.

The decrease in the mortality from this cause has been a tremendous one, as evidenced by the following figures:

Period.	Rate Per 100,000.
1868-1877	91
1878-1887	74
1888-1897	39
1898-1907	20
1908	31
1909	17

Comparing the first with the last decennium above given, a decrease of 78 per cent. will be found; in other words, if the rate of 1868-1877 prevailed during the year 1909, there would have been 3,860 deaths recorded for this disease in the Boroughs of Manhattan, The Bronx and Brooklyn, whereas, as a matter of record, there were only 734 deaths recorded, a saving of 3,126 lives.

DIPHTHERIA AND CROUP.

The rate from this cause was 154 in the decennium 1868-1877, which rose to 170 in the following decennium, fell to 130 and then to 53 in the succeeding decennia; in 1908 the rate fell to 40 and in 1909 to 38; in the year 1895 diphtheria antitoxin was introduced in the treatment of this dread disease and in consequence the deaths which totaled 53,256 in the fifteen years previous to the appearance of this life-saving factor, amounted to 31,571 in the succeeding fifteen years, the rates for the time periods compared being 160 and 61 per 100,000, respectively, a decrease of 62 per cent.

WHOOPING COUGH.

Under this heading 5,212 deaths and a rate of 37 per 100,000 were recorded in the decennium 1868-1877, and 4,124 deaths and a rate

Report of the Bureau of Records.

of 12 in that of 1898-1907, a decrease of 68 per cent.; that is, three children succumbed from this disease in the former to one in the latter decennium.

PULMONARY TUBERCULOSIS.

There were 53,742 deaths reported under this heading in the decennium 1868-1877, with a mortality rate of 376 per 100,000 of the population. This high rate fell gradually until in the decennium of 1898-1907 it reached the comparatively low figure of 224, a decrease of 40 per cent. Notwithstanding this fall in the rate this disease holds the second place as a mortality factor. The campaign of prevention and education introduced by this Department in 1896 is still being fought with unabated, even increased vigor, and with gratifying results.

DIARRHOEAL DISEASES.

The mortality rate of 30.3 per 1,000 children under the age of five years in the decennium 1868-1877 fell to 23.4, then to 19.7 and finally to 13.5 in the subsequent decennia. In 1908 the rate was 11.8 and in 1909 it reached the lowest rate on record, 10, which, compared with the rate in the first decennium, gives a decrease of 66 per cent. The fall in this rate is especially noticeable if we consider the factors to be contended with in our efforts to minimize the ravages of this infection. The foremost obstacles to be met with are a supply of pure milk, the extremely high temperature prevailing in the summer months, the density of the population and the high birth rate among the foreign-born, non-English speaking residents. Special attention was paid to this latter factor, and a large increase in the force of district nurses was made before the summer season began, which undoubtedly had considerable effect upon the mortality, admitting that on the whole the summer might be classified as a "cool" one. The efforts of this Department to secure a constant supply of pure milk for use by the inhabitants are well known, and have been followed by admirable success, but pure milk *per se* will not lessen the mortality rate from diarrhoeal diseases unless it is supplemented by education of the parent as to the necessity of proper and clean feeding, and this latter factor is being driven home into the minds of the parent by the nurses in the employ of the Department who visit the homes of the poor and constantly reiterate the preachings of cleanliness and intelligent methods of infant feeding.

ACUTE RESPIRATORY, CANCEROUS, ORGANIC HEART AND KIDNEY DISEASES.

In contrast to the reduced mortality in the causes mentioned previously, that of the causes not amenable to sanitary intervention has increased considerably. The rate from the acute respiratory diseases, bronchitis and pneumonia, has increased 8 per cent., the rate of 291 per 100,000 in the decennium 1868-1877 increasing to 315 in that of 1898-1907. The mortality from cancer and sarcoma has increased at an

Report of the Bureau of Records.

Cause of Death.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	Average 10 years.	*Corrected average.	1909.	Increase in 1909 from comparison with corrected decennial average.	Decrease in 1909 from comparison with corrected decennial average.
Typhoid fever.....	546	718	727	764	653	661	649	639	740	536	665	784	564	.....	220
Malarial fever.....	167	216	197	125	90	91	53	64	69	34	61	131	40	.....	91
Small-pox.....	18	12	410	310	5	7	9	6	0	1	0	93	2	.....	91
Measles.....	587	816	449	710	568	805	520	1,145	728	972	733	867	947	.....	.....
Scarlet fever.....	533	465	1,762	949	734	851	473	491	796	1,333	778	920	786	.....	134
Whooping cough.....	514	584	289	606	334	197	478	397	393	1,888	387	458	401	.....	57
Diphtheria and croup.....	1,924	2,277	2,068	2,015	2,190	2,084	1,544	1,848	1,740	1,758	1,950	2,366	1,714	.....	592
Influenza.....	461	612	856	157	418	501	311	241	714	403	467	553	535	.....	218
Dysentery.....	267	278	348	254	157	184	149	142	116	91	109	235	74	.....	141
Pulmonary tuberculosis.....	8,015	8,154	8,135	7,569	8,020	8,512	8,535	8,955	8,999	8,863	8,372	9,009	8,643	.....	1,266
Other tuberculous diseases.....	1,522	1,516	1,254	1,314	1,284	1,176	1,123	1,239	1,294	1,288	1,298	1,535	1,268	.....	267
Cancer, sarcoma.....	2,136	2,201	2,463	2,450	2,608	2,709	2,845	3,005	3,227	3,243	2,701	3,106	3,488	.....	.....
Diabetes.....	391	357	393	471	488	549	589	652	664	670	524	620	696	.....	.....
Alcoholism.....	442	403	329	348	630	665	596	636	719	409	517	612	533	.....	79
*Diseases of nervous system.....	5,994	5,648	5,732	5,478	5,234	6,959	7,501	6,046	5,662	4,146	5,839	6,008	3,260	.....	3,648
Diseases of circulatory system.....	4,367	4,417	5,363	5,031	5,770	6,251	6,437	6,951	8,788	9,297	6,351	7,514	10,175	.....	.....
Bronchitis, acute.....	1,088	1,194	1,683	1,898	1,560	1,735	1,417	1,319	1,048	819	1,543	1,825	1,051	.....	774
Pneumonia (lobar and broncho)	8,531	10,482	9,168	9,377	9,714	12,369	9,783	10,868	11,866	9,568	10,161	12,020	10,614	.....	1,406
Diarrhoeal diseases (under 2 years).....	5,160	5,744	5,796	4,938	4,443	5,647	5,877	5,783	6,346	5,977	5,571	6,590	5,126	.....	1,464
Diarrhoeal diseases (2 years and over).....	911	951	977	829	680	880	754	722	772	617	809	937	641	.....	316
Other diseases of digestive system.....	3,042	3,321	2,873	2,812	2,863	2,994	3,109	3,158	3,186	3,039	3,034	3,590	3,248	.....	342
Bright's disease and acute nephritis.....	5,113	5,362	5,500	5,461	5,636	6,220	5,944	6,108	5,685	5,049	5,608	6,635	5,522	.....	1,113
Puerperal diseases.....	725	711	648	642	637	737	815	763	783	699	716	847	719	.....	128
*Congenital debility and malformations and ill-defined causes.....	4,672	4,593	4,707	4,777	4,815	4,880	5,111	5,305	5,439	5,256	4,955	5,862	4,979	.....	863
Old age.....	1,305	1,212	1,231	959	811	933	723	890	683	636	938	1,110	507	.....	513
Homicides.....	137	140	112	127	137	176	165	253	235	231	176	208	182	.....	26
Suicides.....	628	761	713	772	865	853	660	707	710	894	809	809	800	.....	9
Accidents.....	2,620	3,010	3,811	2,853	3,126	4,162	3,651	3,581	3,916	3,512	3,444	4,074	3,331	.....	743
All other causes.....	2,787	3,857	3,216	3,228	3,354	4,182	3,933	4,969	3,948	3,497	3,627	4,292	4,189	.....	103
Total.....	65,343	70,872	70,720	68,112	67,864	78,060	73,714	76,203	79,295	73,072	72,316	85,550	74,105	3,159	14,664
Balance.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,445	.....	11,445	.....

* This column represents the figures of the decennial average corrected to correspond with the increase in population.

Report of the Bureau of Records.

enormous pace; in the decennium 1868-1877 the number of deaths reported was 5,556 and the rate 39 per 100,000, and in that of 1898-1907 the deaths numbered 23,648 and the rate reached the high figure of 67 per 100,000, an increase of 72 per cent. in the rate. While there is no doubt as to the more accurate certification of causes of death contributing to this increase, still it must be admitted that this explanation does not explain, save in part, the increased mortality recorded (see page 242, Annual Report of year 1902). The rate per 100,000 from organic diseases of the kidneys increased from 67 in the decennium 1868-1877 to 139 in that of 1898-1907, an increase of 107 per cent.; the rate from organic heart disease increased, comparing that of 1878-1887 with 1898-1907, from 111 to 138 per 100,000, an increase of 20 per cent.

DEATHS FROM PRINCIPAL CAUSES IN THE GREATER CITY, BY YEARS, FROM 1899 TO 1909.

The table on page 227 shows the deaths from principal causes in the years since the formation of the greater city and compares the deaths in 1909 with the average deaths for the previous ten years, corrected to correspond with the increase in population. Measles shows a considerable increase, as do cancer and diabetes; the tremendous increase in the deaths from circulatory diseases is partly real and partly due to transference from the nervous system of a large number of deaths originally attributed to cerebral hemorrhage or apoplexy, but which upon investigation were assigned under more definite causes, such as diseases of the arteries, organic heart disease, Bright's disease, alcoholism and syphilis.

COMPARISON OF DEATHS BY AGE AND SEX GROUPS.

The following table shows the decennial death rates per 1,000 by sex and by age groups typifying infancy, childhood, youth, maturity, decline and old age, and is based upon deaths in the former City of New York (present Boroughs of Manhattan and The Bronx):

Age Groups.	Decennium 1880-1889, Rates Per 1000 Living at Those Ages.		Decennium 1890-1899, Rates Per 1000 Living at Those Ages.		Decrease in Rate Compared with Previous Decennium.	
	Male.	Female.	Male.	Female.	Male.	Female.
Under 5 years.....	109.12	94.67	87.75	75.98	20%	20%
5-15 years.....	7.29	6.02	5.38	5.26	26%	24%
15-25 years.....	9.00	7.51	7.60	6.07	16%	19%
25-45 years.....	17.36	14.55	15.34	12.08	12%	17%
45-65 years.....	35.89	27.96	34.96	27.45	3%	2%
Over 65 years.....	110.93	100.47	104.41	98.66	6%	2%
All ages.....	29.17	24.57	25.05	21.10	14%	14%

Report of the Bureau of Records.

Age Groups.	Decennium 1900-1909. Rates Per 1000 Living at Those Ages.		Decrease in Rate Compared with Previous Decennium.		Decrease in Rate Compared with First Decennium.	
	Male.	Female.	Male.	Female.	Male.	Female.
Under 5 years.....	60.54	52.24	31%	31%	45%	45%
5-15 years.....	4.25	3.96	21%	25%	42%	43%
15-25 years.....	6.32	5.00	17%	18%	39%	33%
25-45 years.....	13.92	10.23	9%	15%	20%	30%
45-65 years.....	35.51	26.37	*1½%	4%	1%	6%
Over 65 years.....	103.95	93.96	½%	5%	6%	6%
All ages.....	20 93	17.05	16%	19%	28%	31%

* Increase.

The death rate among females, as compared with males, is lower in each decennium and at each age group; the per cent. reduction in the rate among the females has equalled or surpassed that among the males at every age group in comparing the last with the first decennium, and under the age of fifteen and above forty-five years the degree of reduction is almost the same, while between twenty-five and forty-five years of age the reduction is much greater among the females; by far the greatest saving in human life has taken place before the age of forty-five, and above this latter the saving is comparatively very small. Those causes which the Department of Health has sought to eradicate have reflected their disappearance or abeyance in the absent or diminished mortality of smallpox, typhus fever, Asiatic cholera, typhoid fever, diphtheria and croup, measles, scarlet fever, whooping cough, tuberculosis and diarrhoeal diseases, causes which affect mankind before and during maturity, while on the other hand those that no sanitary interference can possibly affect have increased tremendously, especially cancerous, circulatory and urinary diseases. To a lesser extent the mortality from acute respiratory diseases has increased. Judging from calculations made two years ago, the decreased mortality from tuberculosis at the ages over forty-five years has had the effect of turning what would have been an increase from all causes to a very slight reduction.

In the comparison of the last decennium rates with those of the immediately preceding decennium the only increase in the percentages in the whole table is shown at the age period 45 to 65 years among the males, and coincidentally it is at this same age period among males that an increase exists in the death rate from all tuberculous diseases.

It is also evident from this table that the entrance of the female into the business world has not been followed by an increased mortality at any age group, as compared with the male, and if we consider the ages 25 to 45 years as the most productive in a social and political economy sense, we find that it is at these ages that the decrease in the mortality of the female, as compared with the male, is greatest. The work assumed by the female has not added to her mortality; it has brought greater physical comforts and increased her span of life.

Report of the Bureau of Records.

INFANT MORTALITY.

The number of infants under one year of age dying in the greater city during the past year was 15,976, against 16,231 during 1908. This mortality is generally expressed in cities and countries where the returns of births are complete in figures proportionate to one thousand births. In this city the returns are not complete as yet, though the percentage reported has gradually increased until the present year, when an estimated ninety-five out of every hundred born have been received. Notwithstanding this incomplete registration, the infant mortality of this city compares favorably with most of the large cities of the world, as shown by the following rates for the year 1908:

City.	Rate per 1000 Births Reported.	City.	Rate per 1000 Births Reported.	City.	Rate per 1000 Births Reported.
Moscow.....	321	Hamburg.....	156	Frankfort a. M....	139
St. Petersburg	282	Dresden.....	152	Glasgow.....	137
Montreal.....	259	Manchester.....	151	Leeds.....	137
Nuremberg.....	208	Budapest.....	150	New York.....	128
Trieste.....	198	Copenhagen.....	150	Milan.....	123
Breslau.....	194	Belfast.....	147	Edinburgh.....	122
Cologne.....	193	Dublin.....	145	London.....	113
Munich.....	192	Hull.....	145	Rotterdam.....	111
Konigsberg.....	186	Birmingham.....	144	Paris.....	103
Vienna.....	183	Bradford.....	143	Melbourne.....	98
Berlin.....	168	Liverpool.....	141	Amsterdam.....	95
Bremen.....	157	Sheffield.....	140	Stockholm.....	87
				Sydney.....	83

The German cities mentioned in the table all possessed a higher rate than New York, as did all of the English cities save London; the Russian cities showed a tremendously higher rate than all others. Of course in comparing the death rate of infants in one city with that of another it must be borne in mind that there exist uncontrollable operative factors that increase the rate irrespective of sanitary intervention; the geographical and climatic surroundings of one may conduce to an extremely low rate and those of another tend to the opposite extreme. The proportion of illegitimate to legitimate births and of hand to breast-fed infants plays a most important part in the determination of infant mortality; the density of the population, the care bestowed upon the infant and racial characteristics all have bearing upon the question.

The table on opposite page shows the infant mortality in boroughs and City for fifty-two weeks of the year 1909, giving the number of deaths from all causes and diarrhoeal diseases by age subdivisions under one year:

Out of every thousand deaths under one year of age from all causes 325 die before the completion of the first month of life, 505 die before the age of three months is attained and almost 700 died before the age of six months. Most of the deaths under the first month of life are due to prematurity, malformations, injury at birth, inability

Report of the Bureau of Records.

Deaths from All Causes and Diarrhoeal Diseases, by Subdivisions of Ages, of Children Under One Year, for the Fifty-two Weeks Ending December 25, 1909.

BOROUGHES.

Ages.	Manhattan.		The Bronx.		Brooklyn.		Queens.		Richmond.	
	All Causes.	Diarrhoeal.	All Causes.	Diarrhoeal.	All Causes.	Diarrhoeal.	All Causes.	Diarrhoeal.	All Causes.	Diarrhoeal.
Under 1 month.	2,816	208	377	25	1,597	105	283	23	98	6
1 month and under 2 months.	1,023	220	82	20	415	156	76	24	29	11
2 months and under 3 months.	700	234	69	19	382	160	72	32	22	8
3 months and under 6 months.	1,623	630	197	88	932	466	160	85	74	29
6 months and under 9 months.	1,391	482	132	48	847	388	139	70	51	26
9 months and under 12 months.	1,368	352	137	38	734	247	119	57	36	12
Total under 1 year.	8,861	2,126	994	238	4,997	1,522	849	291	310	92

CITY OF NEW YORK.

Ages.	All Causes.		Diarrhoeal.
	All Causes.	Diarrhoeal.	
Under 1 month.	5,171	367	
1 month and under 2 months.	1,625	431	
2 months and under 3 months.	1,245	453	
3 months and under 6 months.	2,986	1,298	
6 months and under 9 months.	2,560	1,014	
9 months and under 12 months.	2,334	706	
Total under 1 year.	15,921	4,269	

Report of the Bureau of Records.

to assimilate nourishment and gastro-enteric infection; over 15 per cent. of deaths of infants under three months is due to diarrhoeal diseases.

The table on opposite page indicates to a fair degree the infant mortality as dependent upon congestion of population, birth rate and race; objection may be made to the smallness of the figures in some areas and with a certain amount of justice to warrant it, but the following conclusions may be justly drawn; the areas showing a density of over eight hundred to an acre produce rates per one thousand births—with one exception—considerably above that of the entire city, which in 1909 was 130; those below 800 persons to the acre—except one—in which the total number of births reported was 101, and in which the element of paucity of figures enters, gave rates below the average for the city; in fact, an area inhabited by persons well off in this world's goods gave an extremely low birth rate of 6.95 per 1,000 population and a mortality rate of 51 per 1,000 births; all areas with a birth rate of over 19 per 1,000 population gave, with one exception, high death rates among the infants; two square blocks inhabited almost exclusively by negroes gave death rates of 298 and 319 per 1,000 births; one square block inhabited by Jews gave a birth rate of 54.9 per 1,000 population and a death rate of 166; two "Italian" blocks gave death rates of 156 and 165; one "Irish" block gave a death rate of 204, while another block of the same character gave one of 141; the two "colored" blocks gave the highest death rate from the diarrhoeal and acute respiratory diseases, and were second highest as regards those from congenital debility; an "American" block gave the highest death rate from this latter cause, and as congenital debility includes under its general title chiefly prematurity and marasmus the conclusion may be drawn that to abortion or lack of vitality may be attributed this phenomenon; the "colored," Italian and Jewish areas showed double to treble the mortality from the acute pneumonias and bronchitis than the two "American" blocks; the deaths from contagious diseases and syphilis were so few that no conclusions are attempted therefrom.

The following table gives the causes of death among children under one year of age and the percentages of all deaths occurring at this age group in the entire city for the year 1909:

Causes.	Number of Deaths.	Per Cent. of Total.
All causes.....	15,976	100
Congenital diseases	4,380	27.4
Diarrhoeal diseases	4,254	26.6
Acute respiratory diseases.....	3,608	22.6
Contagious diseases.....	726	4.5
Marasmus	491	3.1
Convulsions	383	2.4
Tuberculosis.....	310	2.0
Syphilis.....	224	1.4
Meningitis.....	196	1.2
Violence	109	0.7

Report of the Bureau of Records.

Infant Mortality Per 1000 Births in Certain Blocks, Borough of Manhattan, for the Years 1907, 1908 and 1909 Combined.

Location.	Population, Census of 1905.	Area in Acres.	Number of Persons to Acre.	Births Reported.	Birth Rate Per 1000 Population.	Deaths Under 1 Year of Age.	Mortality Per 1000 Births from All Causes.	Diarrhoeal Diseases.		Congenital Debility.		Acute Respiratory Diseases.	
								Deaths.	Mortality Per 1000 Births.	Deaths.	Mortality Per 1000 Births.	Deaths.	Mortality Per 1000 Births.
Group of 9 Blocks—West Sixty-eighth to West Seventy-seventh street, Amsterdam, Columbus avenue and Broadway.	5,653	26.06	216.9	118	6.95	6	50.8	..	....	3	25.4	2	16.9
Group of 7 Blocks—East Thirty-first to East Thirty-sixth street, Third avenue, Lexington and Park avenues.	3,467	11.15	310.9	101	9.71	16	158.4	3	29.7	5	49.5	..	...
Group of 5 Blocks—West Seventy-ninth to West Eighty-fourth street, Amsterdam and Columbus avenues.	6,199	14.08	413.2	132	7.10	16	121.2	1	7.5	7	53.0	4	30.3
Block bounded by West Sixtieth and West Sixty-first streets, Amsterdam and West End avenues.	2,939	3.65	895.2	235	26.65	70	297.8	17	72.3	8	34.0	28	119.1
Block bounded by West Sixty-first and West Sixty-second streets, Amsterdam and West End avenues.	3,833	3.65	1,050.1	229	19.91	75	318.8	21	91.7	10	43.7	24	104.8
Block bounded by Monroe, Madison, Market and Catherine streets.	3,284	3.05	1,076.7	541	54.90	90	166.3	26	48.0	11	20.3	36	66.5
Block bounded by West Thirty-eighth and West Thirty-ninth streets, Ninth and Tenth avenues.	2,731	2.53	1,079.4	211	25.75	43	203.8	16	75.8	4	18.9	11	52.1
Block bounded by West Thirty-ninth and West Fortieth streets, Ninth and Tenth avenues.	2,938	2.53	1,161.2	234	26.54	35	141.0	8	34.2	8	34.2	7	29.9
Block bounded by East One Hundred and Thirtieth and East One Hundred and Thirtieth streets, First and Second avenues.	2,523	2.10	1,201.4	382	50.47	63	164.9	11	28.8	7	18.3	29	75.9
Block bounded by East One Hundred and Fourteenth and East One Hundred and Fifteenth streets, First and Second avenues.	2,885	2.10	1,373.8	416	48.00	55	127.4	9	21.6	9	21.6	23	55.5
Block bounded by East One Hundred and Twelfth and East One Hundred and Thirtieth streets, First and Second avenues.	5,191	2.10	2,471.9	703	45.13	110	156.4	28	39.8	10	14.2	53	75.4

Report of the Bureau of Records.

Compared with a similar table for the year 1908, the most noticeable change has been the great decrease in the number of deaths reported from diarrhoeal diseases amounting to 864, which placed the deaths from this cause in second place in lieu of first for the first time since the organization of the Greater City in 1898; this decrease was due to the favorably low temperature prevailing aided by the extraordinary efforts upon the part of this Department to reach and educate the mothers to the necessity of scrupulous cleanliness in the feeding of bottle-fed infants and of breast nursing when possible; private philanthropy as usual was of great aid in establishing means of providing pure milk, seaside and country homes, water excursions, etc.

*Deaths and Death-rates Per 1,000 Infants Under 1 Year of Age (Estimated),
Former City of New York—1890 to 1909, Inclusive.*

Cause of Death.	Quinquennium, 1890-1894.		Quinquennium, 1904-1908.		Year 1909.	
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
Measles	191	3.99	151	2.41	142	2.07
Scarlet fever	47	.98	23	.37	30	.44
Whooping cough	199	4.16	95	1.52	133	1.94
Diphtheria and group	193	4.03	142	2.27	149	2.17
Erysipelas	76	1.59	89	1.42	110	1.60
*Tuberculous diseases	361	7.54	162	2.59	140	2.04
Syphilis	83	1.73	118	1.88	177	2.58
Meningitis (simple)	396	8.27	260	4.15	148	2.16
Convulsions	530	11.07	333	5.31	225	3.28
Acute respiratory diseases	2,050	42.83	2,092	33.38	2,201	32.06
Diarrhoeal diseases	3,227	67.44	2,863	45.69	2,354	34.29
Congenital debility, malformations and marasmus	2,915	60.91	3,432	54.78	3,174	46.24
Other causes	702	14.67	574	9.16	922	13.43
Total	10,970	229.18	10,334	164.92	9,905	144.29

* Deaths from pulmonary tuberculosis not included.

Comparing the mortality of the first five years with that of the last five years of the past generation the rates from each cause or causes specified will be found to have diminished considerably, that from the acute respiratory diseases to the extent of 20 per cent., that from congenital and wasting diseases 10 per cent. and that from diarrhoeal diseases 32 per cent. The rates from those causes that form a smaller part of the mortality have all decreased except syphilis, which has increased slightly. Comparison of the mortality of the year 1909 with that of the previous quinquennium should be made with the understanding that there were 3,300 less births reported in 1909 than in the previous year, and, in consequence, the estimate of the population is somewhat higher than it actually is, and, to make the comparison more equitable, it would be advisable to add 2.33 points per 1,000 to the rate from the congenital debility group of causes, 1.75 to that from diarrhoeal diseases and 1.62 to that from acute respiratory diseases. The amount to be added to the minor causes would be so small as to be negligible. With these additions it will be seen

Report of the Bureau of Records.

that the year 1909 showed a much decreased mortality from the diarrhoeal and congenital diseases; that from the acute respiratory diseases has remained almost stationary; the rates from scarlet fever, whooping cough and syphilis show increases, the last named a considerable one.

COMPARISON OF DEATHS OF 1909 AND 1908.

The following table shows the number of deaths from the principal causes in the entire city during the year and compares its mortality with that of 1908, indicating the increases and decreases:

Cause of Death.	1908.	1909.	Increase in 1909.	Decrease in 1909.
Typhoid fever.....	536	564	28	....
Malarial fever.....	34	40	6	....
Small-pox.....	1	2	1	....
Measles.....	972	997	25	....
Scarlet fever.....	1,333	786	....	547
Whooping-cough.....	185	401	213	....
Diphtheria and croup.....	1,758	1,714	....	44
Influenza.....	493	335	....	68
Dysentery.....	91	94	3	....
Pulmonary tuberculosis.....	8,860	8,643	....	226
Other tuberculous diseases.....	1,288	1,268	....	20
Cancer, sarcoma.....	3,243	3,488	245	....
Diabetes.....	670	696	26	....
Alcoholism.....	409	533	124	....
Diseases of the nervous system.....	4,146	3,200	....	886
Diseases of the circulatory system.....	9,297	10,175	878	....
Acute bronchitis.....	819	1,051	232	....
Lobar and broncho pneumonia.....	9,508	10,614	1,106	....
Diarrhoeal diseases (under 2 years).....	5,977	5,126	....	851
Diarrhoeal diseases (2 years and over).....	617	641	24	....
Other diseases of the digestive system.....	3,039	3,248	209	....
Bright's disease and acute nephritis.....	5,049	5,522	473	....
Puerperal diseases.....	699	719	20	....
Congenital debility and malformations.....	4,581	4,443	....	138
Old age.....	636	597	....	39
Homicides.....	231	182	....	49
Suicides.....	994	890	....	104
Sunstroke.....	142	130	....	12
Other accidents.....	3,570	3,261	....	169
Ill defined causes.....	675	526	....	119
All other causes.....	3,497	4,189	692	....
Total.....	73,072	74,105	4,305	3,272
	74,105	....	3,272	....
Balance.....	+1,033	....	+1,033	....

TYPHOID FEVER.

The number of deaths reported from this cause in 1909 was 564, against 536 in 1908, the rate remaining the same; *i. e.*, 12 per 100,000 of the population, the lowest rate from this cause in the history of the Department, and 61 per cent. lower than the rate in the decennium 1868-1877, when it was 31 per 100,000. In the early years of the Department's history there were many deaths attributed to malarial fevers that in all probability were deaths from typhoid fever; in the years 1881 and 1882 there were 1,438 deaths reported from malaria; it seems as if this cause was often used as a cloak to hide the pardon-

Report of the Bureau of Records.

able medical ignorance, when we consider that during the past two years there were only 74 deaths reported.

SMALL-POX.

Nine cases of smallpox, with two deaths, were reported during the year. The recurrent wave of small-pox mortality was due, judging by past experience, in 1908, failed to appear in that year and in the one just passed, and this absence may be attributed to the thoroughness and volume of the vaccinations performed since the wave of 1901 and 1902.

MEASLES.

There were reported 997 deaths and a rate of 22 per 100,000, against 972 deaths and a similar rate for 1908. The incidence of this disease has taken place in alternate years since 1898, but in 1909 the recession of the case wave was much less marked and a death rate exactly the same as that of the previous year was the result. No explanation can be offered for this unusual phenomenon.

SCARLET FEVER.

There were 786 deaths and a rate of 17 per 100,000, as against 1,333 deaths and a rate of 30, a decrease in the rate of 43 per cent. Compared with the rate of the decennia 1868-1877, 1878-1887, 1888-1897 and 1898-1907, which were 91, 74, 39 and 20 per 100,000, there is a decrease of 81, 77, 56 and 15 per cent., respectively. The number of cases reported was 12,475 during 1909, against 24,426 in 1908. The case fatality has gradually decreased from 7.7 per cent. in 1898 to 6.3 per cent. in 1909.

WHOOPIING COUGH.

There were 401 deaths reported and a consequent rate of 8.8 per 100,000 in 1909, against 188 deaths and a rate of 4 per 100,000 in 1908. This rate more than doubles that of 1908, but is 25 per cent. lower than that of the previous decennium. As usual, the number of female deaths from this cause exceeded that of the male, the figures being 223 and 178.

DIPHTHERIA AND CROUP.

There were 1,758 deaths reported in 1908 from this cause, against 1,714 in 1909, the rate showing a reduction from 39.7 to 37.5 per 100,000. The combined mortality figures of the former cities of New York and Brooklyn (an area containing about 93 per cent. of the present population of the city), show a rate of 154 per 100,000 in the decennium 1868-1877, which rose to 170 in the next decennium, then fell to 130 and to 53 in the two succeeding decennia. The use of diphtheria antitoxin was begun by this Department in 1895, but by reason of the bitter opposition to serum therapy it was not until 1898

Report of the Bureau of Records.

that it began to be used in anything like sufficient dosage. The case fatality of the years 1893 and 1894 combined was 33 per cent.; that of the past two years only 11 per cent.

INFLUENZA.

The deaths reported in 1909 numbered 335, against 403 in 1908, a decrease of 68, and with this decrease one would naturally expect to find a decrease in the deaths from respiratory diseases, but such is not the case, as evidenced by the deaths from lobar pneumonia reaching the total 5,254, which, compared with the figures for 1908, show an increase of 572 deaths. Influenza first appeared in the mortality tables of the City in 1889, assumed epidemic proportions in 1890 and in 1891 reached its apogee, from which time to the present we have had it with us as a disturbing morbidity and mortality factor. In 1891 the death rate founded upon the number of deaths reported as influenza reached the height of 5.15 per 100,000 of the population, but its effect as a contributing factor upon the all chronic diseases has never been accurately measured.

PULMONARY TUBERCULOSIS.

During the year 1909 8,643 deaths and a death rate of 1.89 per 1,000 were recorded, against 8,869 deaths and a death rate of 2.01 in 1908, a decrease of 6 per cent. in the rate. The decennial rate in 1868-1877 was 3.76 per 1,000, that of 1909 showing a comparative decrease of 50 per cent. The International Tuberculosis Congress, held at Washington, D. C., in October, 1908, attracted world wide attention and awakened a lively interest in the struggle going on for the extermination of this disease, and it is fair to assume that the education of the citizens of this country to its cause, prevention and treatment will be reflected in a lessened mortality from this disease throughout the land. The Department of Health of this City was and is the pioneer in this movement, and the efforts being put forth at the present moment exceed those of previous years and should be attended by a greater decrease in the mortality than that of the year 1909.

CANCER AND SARCOMA.

The number of deaths ascribed to malignant growths reached 3,488 in 1909, against 3,243 in 1908, an increase of 245 deaths, the rate per 1,000,000 being 764 and 733, respectively. The rate from this cause has gradually increased for the past forty years, and while it is conceded that part of the increase has been due to more accurate diagnoses and certification and to an increase in the population over the age of thirty-five years, still there are undoubtedly factors of which we are ignorant at work causing this increasing mortality. In the decennium 1868-1877 the rate was 390 per million, against 764 in 1909, almost double.

Report of the Bureau of Records.

DISEASES OF THE NERVOUS SYSTEM.

In 1909, 3,260 deaths from these causes were recorded, a decrease of 886 deaths compared with 1908. The cause of this decrease was due entirely to efforts on the part of this Bureau to obtain a more definite cause of death than apoplexy and cerebral hemorrhage. Letters were written for the underlying factors and the replies received were of such nature that over nine hundred deaths that would have been credited to apoplexy were assigned under Bright's disease, organic heart disease, syphilis, alcoholism and arteriosclerosis.

DISEASES OF THE CIRCULATORY AND URINARY SYSTEM.

In the year 1909, 16,294 deaths of these combined systems were reported, chiefly made up from the deaths attributed to organic heart and Bright's diseases; in 1908, 14,904 deaths were reported under diseases of these two systems, thus showing an increase in 1909 over 1908 of 1,390 deaths. This increase was apparent to a considerable extent and was due to the transfer of six hundred or more deaths from under the nervous diseases, especially apoplexy, to chronic nephritis and diseases of the heart and arteries. On the other hand, there is hardly any doubt but that the increase in the organic heart and kidney diseases which has been noted for thirty years is still going on; in the decennium 1878-1887 the rate from these combined causes was 195 per 100,000, which rose to 244 and 277 in the two succeeding decennia, to 337 in 1908 and 357 in 1909.

ACUTE RESPIRATORY DISEASES.

There were 11,665 deaths in 1909 from the diseases included under this title, to wit, acute bronchitis, broncho-pneumonia and lobar pneumonia, against 10,327 deaths from these causes in 1908, an increase of 1,338 deaths. Almost 80 per cent. of this increase took place in the deaths of children under five years of age, there having been 1,064 more deaths at these ages in 1909 than in 1908, and as the mortality from measles remained about the same for the two years in question, this factor in the acute respiratory deaths among children can be excluded. Influenza deaths were fewer in 1909 than in 1908. The severe epidemic of whooping cough which prevailed in 1909 must be held accountable for this great increase in the deaths among the children, the months in which the deaths from whooping cough were in excess in 1909 over those of 1908 were attended by an increase in the deaths from broncho-pneumonia, save in the first two months of the year, when the epidemic of whooping cough was at its commencement.

DIARRHOEAL DISEASES.

There were 5,767 deaths at all ages from these diseases during 1909, against 6,594 deaths in 1908. The death rate fell from 149 to 126 per 100,000, a decrease of 15 per cent. The following table shows the population, deaths and death rates of children under two years

Report of the Bureau of Records.

of age from all causes and diarrhoeal diseases for a period of twelve years, since the organization of the greater city:

Year.	Population Under Two Years.	Deaths All Causes Under Two Years.	Rates Per 1000 at Two Years.	Deaths Diarrhoea Under Two Years.	Rates Per 1000 Under Two Years.
1898.....	156,421	21,678	138.6	6,459	41.2
1899.....	160,451	19,875	123.9	5,230	32.6
1900.....	164,720	21,520	130.7	5,816	35.5
1901.....	169,884	20,156	118.7	5,796	34.1
1902.....	175,226	20,280	115.7	4,938	28.2
1903.....	180,752	18,418	101.9	4,440	24.3
1904.....	186,468	21,140	113.4	5,647	30.3
1905.....	192,384	20,816	108.2	5,877	30.5
1906.....	198,506	21,901	110.3	5,783	29.1
1907.....	204,843	21,930	107.1	6,346	31.0
1908.....	211,404	20,462	96.8	5,977	28.3
1909.....	218,337	20,716	94.9	5,126	23.5

It will be readily seen from the above table that the mortality at this age group reached the lowest point since the formation of the greater city in 1898; in fact, the rates are the lowest in the history of the Department. The mortality from diarrhoeal diseases is a shade lower than that of 1903 and considerably lower than that of 1908. Comparing the meteorological conditions for 1909 and the year previous, we find them to have been favorable to a decreased diarrhoeal mortality. The mean temperatures recorded during the months of June, July, August and September in 1908 were 72.97, 79.80, 75.78 and 68.58, and those of 1909 were 72.13, 73.55, 72.22 and 66.89. The rainfall during 1909 during the four months mentioned was considerably above that of 1908, and as the temperature and rainfall are two important factors in the determination of diarrhoeal mortality, and as during 1909 there was a continuation of the concerted action of official and philanthropic endeavor in this direction it is not surprising that this low record was reached.

DEATHS FROM VIOLENCE.

Homicides.

There were 182 homicide deaths reported during 1909, against 231 in 1908, a decrease of 49 deaths.

Suicides.

There were 890 suicides reported during the year, against 994 during 1908, a decrease of 104 deaths, this decrease being explained by the clearing up of the financial skies following the stormy conditions prevalent in the fall of 1907 and the whole of 1908. The male suicides numbered 700, against 190 females; 230 males ended their lives by means of illuminating gas, and the same number, 230, used firearms to accomplish their purpose; hanging was used by 61 males; carbolic acid by 45 males and cutting instruments by 44 males; 89

Report of the Bureau of Records.

females out of the 190 reported used illuminating gas, 22 carbolic acid, 21 by jumping from buildings and 14 by firearms. The number of native born surpassed that of any other nationality, as 311 were reported as Americans, 206 as Germans, 81 Russians, 58 Austro-Hungarians, 33 English, 31 Irish and 29 Italians; 61 committed suicide whose birthplaces were unknown.

ACCIDENTS.

The deaths reported from accidents in 1909 were 3,331, against 3,512 in 1908, a decrease of 181; 1,132 deaths were reported from falls and fractures in 1909, against 1,180 in 1908; in 1909 there were 299 deaths reported as due to street vehicles, 18 more than the previous year; 289 were killed by steam and electric cars in 1909, against 393 in 1908, a decrease of 104 deaths; in each year one person was killed by a horse car; burns and scalds claimed 394 victims in 1909, an increase of 24 over 1908; deaths in conflagrations fell from 142 in 1908 to 82 in 1909; insolation claimed 130 in 1909, a decrease of 12; criminal abortion was given as the cause of death in 38 instances, against 54 in 1908; deaths from illuminating gas rose from 206 in 1908 to 244 in 1909.

SEARCHES AND TRANSCRIPTS.

During 1909 there were 127,887 searches made and 48,009 paid transcripts issued of the records of births, deaths and marriages, an increase of 8,063 searches and 2,226 transcripts. Fully 50 per cent. of the total number of searches were made without charge, to aid children to gain admission to the public schools and to obtain employment certificates.

Respectfully submitted,

WM. H. GUILFOY, M. D., Registrar of Records.

Report of the Bureau of Records.

Report of Bureau of Records

	Borough of	
	Manhattan.	* The Bronx.
Number of deaths.....	37,963	6,424
Death-rate.....	16.12	18.46

*The death-rate in the Borough of The Bronx is materially increased by the deaths in institutions,

Borough.	Estimated Population.	Certificates Received and Tabulated.			
		Marriages.	Births.	Deaths.	Still-births.
Manhattan	2,354,576	26,689	63,599	37,963	3,563
The Bronx.....	348,057	1,770	9,574	6,424	493
Brooklyn	1,539,235	11,110	41,494	24,365	2,202
Queens.....	244,947	1,504	6,314	3,838	358
Richmond	77,977	440	1,994	1,515	81
City of New York.....	4,564,792	41,513	122,975	74,105	6,697

	Borough of	
	Manhattan.	The Bronx.
Number of deaths in institutions.....	16,071	2,646
Number of deaths in tenements.....	19,070	2,338
Number of deaths in dwellings.....	1,577	1,283
Number of deaths in hotels and boarding-houses	476	14
Number of deaths in streets, rivers, etc.....	769	143

Report of the Bureau of Records.

for Year Ending December 31, 1909.

Borough of			City of New York.
Brooklyn.	Queens.	Richmond.	
24,365 15.83	3,838 15.67	1,515 19.43	74,105 16.23

most of the inmates having been transferred from the Borough of Manhattan.

Rate per 1,000.				Transit Permits Issued.	Coroners' Cases.	Searches Made.	Tran- scripts Issued.
Marriages.	Births.	Deaths.	Still-births.				
11.33	27.01	16.12	1.51	1,001	5,188	73,838	26,413
5.09	27.50	18.46	1.42	30	738	8,563	3,654
7.22	26.96	15.83	1.43	599	3,178	39,012	15,344
6.14	25.78	15.67	1.47	654	654	4,656	2,921
5.64	25.57	19.43	1.04	.....	245	1,818	577
9.10	26.94	16.23	1.47	2,374	10,003	127,887	48,009

Borough of			City of New York.
Brooklyn.	Queens.	Richmond.	
6,452	599	547	26,315
11,149	983	142	33,682
6,185	2,072	750	11,867
108	41	18	657
471	143	58	1,584

Report of the Bureau of Records.

*Corrected Mortality from All Causes.

Place of Death.	Residents of					Total.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Manhattan.....	.....	456	493	90	52	1 091
The Bronx.....	1,197	.....	97	15	4	1 313
Brooklyn.....	401	31	.....	143	.....	575
Queens.....	63	9	61	.....	.....	133
Richmond.....	86	3	29	1	.....	119
Plus.....	1,747	499	680	249	56	3,231
Minus.....	1,091	1,313	575	133	119	3,231
Net gain or loss.....	+656	-814	+105	+116	-63	.....
Deaths reported.....	37,963	6,424	24,365	3,838	1,515	74,105
and						
Corrected.....	38,619	5,610	24,470	3,954	1,452	74,105
Death rate.....	16.12	18.46	15.83	15.67	19.43	.....
Death rate corrected.....	16.40	16.12	15.90	16.14	18.62	.....
Violence excluded.....	16.12	18.43	15.84	15.74	19.31	.....

*Corrected death-rate means that the death-rate of each borough is corrected by the exclusion of the deaths of residents of the other boroughs occurring within its limits and the inclusion of the deaths of residents of the borough occurring in other boroughs.

Corrected Mortality of Children Under 5 Years of Age.

Place of Death.	Residents of					Total.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Manhattan.....	.....	125	85	17	3	230
The Bronx.....	64	.....	.....	.....	.....	64
Brooklyn.....	288	20	.....	29	.....	337
Queens.....	12	1	4	.....	.....	17
Richmond.....	41	.....	12	1	.....	54
Plus.....	405	146	101	47	3	702
Minus.....	230	64	337	17	54	702
Net gain or loss.....	+175	+82	-236	+30	-51	.....
Deaths reported.....	13,387	1,555	7,885	1,258	436	24,521
and						
Corrected.....	13,562	1,637	7,649	1,288	385	24,521
Death rate.....	49.60	38.98	44.05	44.59	50.10	.....
Death rate corrected.....	50.25	41.04	42.73	45.65	44.25	.....

Report of the Bureau of Records.

Corrected Typhoid Fever Mortality.

Place of Death.	Residents of					Total.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Manhattan.....	.....	2	3	1	.....	6
The Bronx.....	7	.....	.....	.....	.....	7
Brooklyn.....	.....	.....	.....	3	.....	3
Queens.....	.....	1	.....	.....	.....	1
Richmond.....	.....	.....	.....	.....	.....	.....
Plus.....	7	3	3	4	.....	17
Minus.....	6	7	3	1	.....	17
Net gain or loss.....	+1	-4	.....	+3	.....	.....
Deaths reported.....	262	63	191	37	11	564
and						
Corrected.....	263	59	191	40	11	564
Death rate.....	.11	.18	.12	.15	.14	.....
Death rate corrected.....	.11	.17	.12	.16	.14	.....

Corrected Measles Mortality.

Place of Death.	Residents of					Total.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Manhattan.....	.....	.....	1	.....	.....	1
The Bronx.....	5	.....	.....	.....	.....	5
Brooklyn.....	216	13	.....	8	.....	237
Queens.....	.....	.....	.....	.....	.....	.....
Richmond.....	.....	.....	1	.....	.....	1
Plus.....	221	13	2	8	.....	244
Minus.....	1	5	237	.....	1	244
Net gain or loss.....	+220	+8	-235	+8	-1	.....
Deaths reported.....	388	58	509	30	12	997
and						
Corrected.....	608	66	274	38	11	997
Death rate.....	.16	.17	.33	.12	.15	.....
Death rate corrected.....	.26	.19	.18	.15	.14	.....

Report of the Bureau of Records.

Corrected Scarlet Fever Mortality.

Place of Death.	Residents of					Total.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Manhattan.....	.....	18	.....	.....	1	19
The Bronx.....	11	.....	.....	.....	.....	11
Brooklyn.....	9	.....	.....	10	.....	19
Queens.....	.....	.....	.....	.....	.....	.....
Richmond.....	.....	.....	.....	.....	.....	.....
Plus.....	20	18	.....	10	1	49
Minus.....	19	11	19	.....	.....	49
Net gain or loss.....	+1	+7	-19	+10	+1	.....
Deaths reported.....	358	50	326	42	10	786
and						
Corrected.....	359	57	307	52	11	786
Death rate.....	.15	.14	.21	.17	.13	.....
Death rate corrected.....	.15	.16	.20	.21	.14	.....

Corrected Diphtheria Mortality.

Place of Death.	Residents of					Total.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Manhattan.....	.....	24	6	2	.....	32
The Bronx.....	35	.....	.....	.....	.....	35
Brooklyn.....	59	7	.....	8	.....	74
Queens.....	.....	.....	1	.....	.....	1
Richmond.....	1	.....	.....	.....	.....	1
Plus.....	95	31	7	10	.....	143
Minus.....	32	35	74	1	1	143
Net gain or loss.....	+63	-4	-67	+9	-1	.....
Deaths reported.....	963	102	556	73	20	1,714
and						
Corrected.....	1,026	98	489	82	19	1,714
Death rate.....	.41	.29	.36	.30	.26	.....
Death rate corrected.....	.44	.28	.32	.33	.24	.....

Report of the Bureau of Records.

Corrected Pulmonary Tuberculosis Mortality.

Place of Death.	Residents of					Total.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Manhattan.....	.....	42	79	15	2	138
The Bronx.....	876	.....	47	4	1	928
Brooklyn.....	6	.....	.....	13	.....	19
Queens.....	2	.....	1	.....	.....	3
Richmond.....	34	1	10	.....	.....	45
Plus.....	918	43	137	32	3	1,133
Minus.....	138	928	19	3	45	1,133
Net gain or loss.....	+780	-885	+118	+29	-42	.....
Deaths reported.....	4,205	1,623	2,347	309	159	8,643
and						
Corrected.....	4,985	738	2,465	338	117	8,643
Death rate.....	1.79	4.06	1.53	1.26	2.04	.....
Death rate corrected.....	2.12	2.12	1.60	1.38	1.50	.....

Corrected Broncho Pneumonia Mortality.

Place of Death.	Residents of					Total.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Manhattan.....	.....	17	19	3	3	42
The Bronx.....	4	.....	.....	.....	.....	4
Brooklyn.....	1	.....	.....	2	.....	3
Queens.....	3	1	3	.....	.....	7
Richmond.....	9	.....	6	.....	.....	15
Plus.....	17	18	28	5	3	71
Minus.....	42	4	3	7	15	71
Net gain or loss.....	-25	+14	+25	-2	-12	.....
Deaths reported.....	3,133	284	1,593	275	75	5,360
and						
Corrected.....	3,108	298	1,618	273	63	5,360
Death rate.....	1.33	.82	1.03	1.12	.96	.....
Death rate corrected.....	1.32	.86	1.05	1.11	.81	.....

Report of the Bureau of Records.

Corrected Pneumonia Mortality.

Place of Death.	Residents of					Total.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Manhattan.....	.....	17	21	2	.....	40
The Bronx.....	15	.....	.....	.....	.....	15
Brooklyn.....	2	1	.....	9	.....	12
Queens.....	1	.....	3	.....	.....	4
Richmond.....	6	.....	.....	.....	.....	6
Plus.....	24	18	24	11	.....	77
Minus.....	40	15	12	4	6	77
Net gain or loss.....	-16	+3	+12	+7	-6	.....
Deaths reported.....	2,575	382	1,918	279	100	5,254
and						
Corrected.....	2,559	385	1,930	286	94	5,254
Death rate.....	1.09	1.10	1.25	1.14	1.28	.....
Death rate corrected.....	1.09	1.11	1.25	1.17	1.21	.....

Corrected Diarrhoeal Disease Mortality.

Place of Death.	Residents of					Total.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Manhattan.....	.....	26	14	4	1	45
The Bronx.....	6	.....	.....	.....	.....	6
Brooklyn.....	5	.....	.....	4	.....	9
Queens.....	8	.....	6	.....	.....	14
Richmond.....	13	.....	3	1	.....	17
Plus.....	32	26	23	9	1	91
Minus.....	45	6	9	14	17	91
Net gain or loss.....	-13	+20	+14	-5	-16	.....
Deaths reported.....	2,857	348	2,047	396	119	5,767
and						
Corrected.....	2,844	368	2,061	391	103	5,767
Death rate.....	1.21	1.00	1.33	1.62	1.53	.....
Death rate corrected.....	1.21	1.06	1.34	1.60	1.32	.....

Report of the Bureau of Records.

Table of Mortality from the Principal

Cause of Death.	City of									
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.
Total, all causes.....	6,297	5,743	7,018	6,995	6,409	5,802	6,103	6,088	5,321	5,855
1. Typhoid fever.....	36	25	26	18	31	33	39	56	94	95
2. Typhus fever.....	..	..	..	..	..	..	..	..	..	..
3. Malarial fevers.....	4	3	4	2	2	3	6	3	2	4
4. Small-pox.....	..	1	..	..	..	..	..	..	..	1
5. Measles.....	73	88	111	165	136	138	99	53	27	29
6. Scarlet fever.....	83	85	101	76	116	85	37	21	22	19
7. Whooping cough.....	18	18	31	33	46	31	51	55	51	30
8. Diphtheria and croup.....	192	188	196	193	161	142	106	64	73	80
9. Influenza.....	37	34	77	89	28	3	..	1	4	5
10. Asiatic cholera.....	..	..	..	..	..	..	..	..	..	..
11. Cholera nostras.....	..	..	..	..	..	..	..	..	..	..
12. Other epidemic diseases.....	27	36	50	50	36	33	31	38	32	20
13. Tuberculosis pulmonalis.....	750	797	840	861	774	717	683	633	585	649
14. Tubercular meningitis.....	54	64	79	91	71	63	85	80	63	55
15. Other forms of tuberculosis.....	26	38	46	42	40	38	45	31	42	30
16. Cancer, malignant tumors.....	279	284	281	291	278	285	300	281	259	308
17. Meningitis, simple.....	45	57	67	58	82	56	54	58	60	47
(of which)										
17a. Cerebro-spinal meningitis.....	20	25	32	28	34	26	30	34	32	23
18. Apoplexy, congestion and softening of brain.....	96	68	75	75	78	74	59	77	58	85
19. Organic heart disease.....	694	584	703	635	560	490	453	473	426	589
20. Acute bronchitis.....	127	92	115	112	100	46	40	48	68	80
21. Chronic bronchitis.....	16	15	33	36	35	27	19	12	17	34
22. Pneumonia (excluding broncho-pneumonia).....	539	511	676	712	471	307	200	157	231	337
22a. Broncho-pneumonia.....	558	453	631	653	509	397	300	260	249	343
23. Diseases of stomach (cancer excepted).....	35	27	35	46	52	46	41	32	45	41
24. Diarrhœas (under five years) ..	147	159	182	206	226	285	1,122	1,328	818	551
25. Hernia, intestinal obstruction...	44	48	50	36	58	39	42	51	36	61
26. Cirrhosis of liver.....	109	81	79	95	82	99	76	78	87	104
27. Bright's disease and nephritis...	447	458	580	523	482	478	384	396	347	426
28. Diseases of women (not cancer)	27	21	31	28	33	33	27	20	17	15
29. Puerperal septicæmia.....	36	21	29	21	26	14	24	16	13	19
30. Other puerperal diseases.....	43	30	44	41	38	34	53	35	40	38
31. Congenital debility and malformations.....	409	345	399	351	368	322	323	447	350	362
32. Old age.....	51	56	62	57	50	40	42	37	39	53
33. Violent deaths.....	314	262	374	384	373	450	451	395	321	307
a. Sunstroke.....	..	..	..	..	..	85	33	12	..	..
b. Other accidents.....	224	186	271	276	276	276	319	308	243	278
c. Homicide.....	13	11	15	24	20	12	19	17	14	13
d. Suicide.....	77	65	88	84	77	77	80	58	64	76
34. All other causes.....	954	863	979	979	1,028	955	840	773	763	921
35. Ill-defined causes.....	27	21	41	36	39	39	71	79	82	57
Under one year.....	1,234	1,076	1,322	1,272	1,216	1,102	1,759	1,939	1,456	1,303
One year, under two years.....	339	378	412	513	460	423	433	459	391	329
Total under five years.....	1,903	1,780	2,111	2,173	2,057	1,846	2,531	2,674	2,104	1,873
Sixty-five years and over.....	1,135	967	1,222	1,116	982	889	726	735	685	974
Seventy years and over.....	771	647	850	760	647	613	487	486	449	646
Males.....	3,471	3,086	3,746	3,829	3,471	3,228	3,329	3,338	2,905	3,190
Females.....	2,826	2,657	3,272	3,166	2,938	2,574	2,774	2,750	2,416	2,665
Colored.....	195	160	197	237	213	201	181	152	125	158
Chinese.....	10	6	6	9	4	5	10	2	4	4

Report of the Bureau of Records.

Causes of Death During the Year 1909.

New York.			Borough of Manhattan.												
Nov.	Dec.	Total.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
5,879	6,595	74,105	3,261	3,017	3,667	3,782	3,422	2,981	2,844	3,051	2,624	3,002	2,976	3,336	37,963
66	45	564	15	12	12	9	11	17	16	25	45	39	40	21	262
..
6	1	40	1	..	1	..	..	1	1	..	..	2	1	..	7
..	..	2	..	1	..	..	..	..	..	..	..	1	..	..	2
25	53	907	31	37	33	72	67	55	29	16	7	13	10	18	388
56	85	786	39	35	41	43	70	37	21	7	9	6	22	28	358
22	15	401	10	8	19	23	27	24	27	28	23	12	13	6	220
138	181	1,714	117	107	118	104	82	72	59	34	42	47	83	98	963
19	38	335	21	13	38	45	11	2	..	..	3	3	11	19	166
..
..
32	37	422	21	19	38	37	26	21	17	16	21	10	17	27	270
695	749	8,643	358	344	384	438	382	347	318	292	298	317	338	389	4,205
48	62	806	35	39	43	60	50	40	47	58	39	29	29	43	512
40	44	462	15	20	20	21	15	17	16	19	17	18	26	22	226
309	333	3,488	152	148	142	156	159	168	138	129	134	178	146	178	1,828
41	51	676	26	34	43	46	51	38	30	35	25	28	28	33	417
19	23	326	8	14	21	20	20	17	16	19	11	12	11	15	184
100	100	945	25	33	39	42	31	28	22	37	25	32	40	40	394
575	672	6,854	343	295	359	335	264	233	187	229	195	262	240	281	3,223
81	142	1,051	48	41	47	65	49	18	22	27	31	35	30	71	484
29	38	311	7	7	10	12	9	7	6	6	6	12	7	9	98
472	641	5,254	260	274	367	368	239	148	96	68	90	161	230	274	2,575
413	594	5,360	337	267	393	411	310	232	146	140	141	200	243	313	3,133
42	39	482	10	15	20	19	33	30	16	19	24	17	26	21	250
215	141	5,380	95	98	96	130	144	146	431	689	402	275	92	67	2,665
52	41	558	30	20	26	27	34	19	24	21	15	28	26	20	290
92	98	1,080	49	35	29	43	36	50	37	36	39	50	50	53	507
470	531	5,522	221	219	282	220	242	214	190	193	158	207	223	243	2,612
31	18	301	19	15	20	13	16	14	16	12	9	4	20	12	170
12	19	250	16	8	19	11	16	10	11	6	2	8	4	10	121
44	29	469	25	19	20	21	19	17	32	15	20	20	22	15	245
393	374	4,443	234	206	241	208	194	166	178	251	163	213	201	203	2,458
61	49	597	9	26	28	20	21	10	14	8	11	17	18	18	200
351	361	4,403	173	146	202	205	209	241	213	206	152	204	191	208	2,350
..	..	130	..	..	..	..	..	45	19	7	..	..	..	..	71
272	272	3,201	122	100	141	153	156	145	144	164	108	153	146	155	1,687
12	12	182	8	8	9	9	12	6	13	11	6	7	7	8	104
67	77	890	43	38	52	43	41	45	37	24	38	44	38	45	488
907	991	10,953	498	458	498	545	574	529	443	379	417	521	515	579	5,956
41	23	556	21	18	39	33	31	30	41	50	61	33	34	17	408
1,089	1,208	15,976	689	647	794	811	739	630	810	1,071	759	733	597	634	8,914
282	321	4,740	107	221	246	309	261	220	203	232	178	157	140	176	2,540
1,632	1,835	24,519	1,065	1,053	1,240	1,346	1,224	1,003	1,180	1,434	1,056	986	855	944	13,386
1,018	1,158	11,607	505	434	552	514	485	395	283	321	318	441	456	554	5,258
689	766	7,811	336	275	382	334	310	265	184	216	191	290	298	360	3,441
3,201	3,539	40,333	1,811	1,657	1,959	2,078	1,867	1,670	1,537	1,685	1,516	1,689	1,660	1,832	20,961
2,678	3,056	33,772	1,450	1,360	1,708	1,704	1,555	1,311	1,307	1,366	1,108	1,313	1,316	1,504	17,002
176	181	2,176	121	107	118	148	141	127	92	91	76	93	99	113	1,326
9	8	77	10	5	6	8	4	3	9	2	3	3	9	8	70

Report of the Bureau of Records.

Table of Mortality from the Principal

Cause of Death.	Borough of									
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Total, all causes.....	529	509	635	620	536	536	528	569	455	494
1. Typhoid fever.....	4	5	2	2	8	6	3	9	13	9
2. Typhus fever.....	..	..	..	..	..	..	..	..	..	..
3. Malarial fevers.....	1	..	..	..	1	..	..	1	..	..
4. Small-pox.....	..	..	..	..	..	..	..	..	..	..
5. Measles.....	2	7	8	13	8	8	1	3	..	2
6. Scarlet fever.....	5	9	12	4	6	6	2	1	..	..
7. Whooping cough.....	4	2	2	2	6	1	4	6	3	2
8. Diphtheria and croup.....	10	16	14	15	10	8	9	1	3	3
9. Influenza.....	3	3	3	4	..	..	..	1	..	..
10. Asiatic cholera.....	..	..	..	..	..	..	..	..	..	..
11. Cholera nostras.....	..	..	..	..	..	..	..	..	..	..
12. Other epidemic diseases.....	3	5	3	6	4	..	1	3	1	..
13. Tuberculosis pulmonalis.....	135	124	190	157	149	161	133	122	94	117
14. Tubercular meningitis.....	2	1	7	8	4	6	10	7	8	7
15. Other forms of tuberculosis.....	2	2	6	..	..	1	1	1	3	..
16. Cancer, malignant tumors.....	22	23	23	19	20	23	31	33	19	34
17. Meningitis, simple.....	2	8	8	5	7	4	4	1	11	3
(of which)										
17a. Cerebro-spinal meningitis.....	1	3	3	4	3	3	2	1	8	2
18. Apoplexy, congestion and softening of brain.....	19	6	4	11	14	5	9	18	6	16
19. Organic heart disease.....	74	53	57	62	57	47	44	46	46	79
20. Acute bronchitis.....	10	8	9	8	7	4	1	1	3	6
21. Chronic bronchitis.....	1	1	3	3	..	1	1	..	1	..
22. Pneumonia (excluding broncho-pneumonia).....	49	38	48	61	33	26	14	16	15	14
22a. Broncho-pneumonia.....	20	28	34	28	23	19	25	13	15	19
23. Diseases of stomach (cancer excepted).....	4	2	4	8	4	4	5	1	4	1
24. Diarrheas (under five years).....	7	7	10	10	8	10	62	93	49	30
25. Hernia, intestinal obstruction.....	4	5	6	..	8	2	2	3	3	6
26. Cirrhosis of liver.....	10	6	6	5	8	7	9	8	6	3
27. Bright's disease and nephritis.....	31	35	38	49	33	42	21	29	26	25
28. Diseases of women (not cancer).....	1	1	2	5	2	2	1	1	1	1
29. Puerperal septicemia.....	3	2	1	2	1	..	2	1	1	2
30. Other puerperal diseases.....	2	2	8	2	7	..	4	7	3	2
31. Congenital debility and malformations.....	20	21	23	31	22	20	24	43	31	22
32. Old age.....	3	1	5	5	6	7	2	5	3	6
33. Violent deaths.....	23	24	23	30	16	48	46	33	32	26
a. Sunstroke.....	..	..	..	..	..	6	1	1	..	..
b. Other accidents.....	13	19	16	17	12	29	35	24	23	20
c. Homicide.....	..	..	..	3	..	..	..	1	3	2
d. Suicide.....	10	5	7	10	4	13	10	7	6	4
34. All other causes.....	51	64	75	64	61	63	50	60	49	57
35. Ill-defined causes.....	2	..	1	1	3	5	7	2	6	2
Under one year.....	73	65	81	75	71	56	106	133	87	76
One year and under two years.....	12	25	26	24	32	20	26	37	29	19
Total under five years.....	101	119	139	133	123	103	159	188	137	117
Sixty-five years and over.....	107	82	99	91	80	70	69	59	57	79
Seventy years and over.....	72	57	71	65	60	49	46	34	35	53
Males.....	312	278	348	373	295	321	291	319	244	262
Females.....	217	231	287	247	241	215	237	250	211	232
Colored.....	16	11	22	22	14	15	18	21	10	14
Chinese.....	..	..	..	..	..	..	..	..	..	..

Report of the Bureau of Records.

Causes of Death During the Year 1909.

The Bronx.			Borough of Brooklyn.												
Nov.	Dec.	Total.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
504	509	6,424	2,098	1,838	2,236	2,134	2,044	1,871	2,189	1,953	1,831	1,898	1,967	2,306	24,365
1	1	63	12	7	10	6	8	8	18	16	29	38	20	19	191
..
..	..	3	2	3	3	2	..	2	2	2	1	2	4	1	24
..
1	5	58	36	42	63	75	60	67	62	31	17	13	13	30	509
4	1	50	36	35	38	25	32	33	12	13	10	11	28	53	326
2	..	34	4	7	10	6	12	5	14	18	18	11	6	7	118
8	5	102	56	56	56	64	66	55	29	24	27	22	31	70	556
2	..	16	12	18	33	34	14	1	..	..	1	2	6	18	139
..
..
1	2	29	3	11	9	5	6	11	10	13	10	10	13	7	108
124	117	1,623	225	196	212	220	210	178	197	180	164	176	195	194	2,347
5	6	71	16	21	16	19	16	14	22	14	12	18	12	11	191
1	..	17	9	13	18	19	21	18	26	9	20	10	10	18	191
17	31	295	82	91	91	98	82	79	104	95	89	77	120	102	1,110
6	1	60	12	11	12	5	21	13	17	16	20	14	6	12	159
4	..	34	10	7	7	3	10	6	10	12	11	8	4	8	96
16	17	141	44	24	29	18	32	39	25	17	22	31	34	36	351
54	61	680	240	192	242	193	191	158	170	150	148	204	232	284	2,404
7	6	70	58	57	50	33	36	21	16	16	31	32	41	54	425
4	..	15	8	7	19	21	24	17	12	5	10	19	17	28	187
31	37	382	192	164	214	233	160	110	78	64	108	132	176	287	1,918
22	38	284	168	131	173	172	152	114	103	85	72	98	123	202	1,593
2	4	43	18	10	8	13	13	12	16	11	15	16	14	12	158
19	15	320	41	47	64	54	58	101	513	422	285	188	90	49	1,912
5	1	45	4	19	12	5	13	13	11	24	14	23	17	17	172
4	7	79	44	36	36	34	32	28	24	28	35	41	31	31	400
33	41	403	151	169	221	204	173	177	141	143	136	159	177	197	2,048
..	..	17	7	3	9	9	13	14	8	5	6	8	10	6	98
..	2	17	14	11	6	5	8	4	9	7	9	8	7	5	93
6	4	47	11	8	13	16	9	16	10	8	13	13	11	9	137
38	30	325	116	88	107	90	118	109	98	125	127	103	116	117	1,314
6	4	53	34	24	19	26	17	14	14	19	16	17	26	21	247
23	25	349	91	70	113	121	116	125	133	121	112	109	111	96	1,318
..	..	8	..	..	..	..	..	26	10	3	..	..	..	..	39
18	21	247	68	50	87	85	81	77	93	89	90	84	85	71	960
1	..	10	5	3	5	10	7	6	4	5	4	4	3	3	59
4	4	84	18	17	21	26	28	16	26	24	18	21	23	22	260
60	47	701	349	285	330	308	331	314	285	270	248	288	270	310	3,588
2	1	32	3	2	..	..	..	1	10	2	6	5	..	3	33
92	76	991	384	300	367	328	335	341	682	562	489	385	324	426	4,923
16	15	281	117	120	119	155	147	155	172	152	144	119	116	108	1,624
129	106	1,554	611	518	617	601	607	613	968	819	726	603	535	667	7,885
81	89	969	422	368	462	406	337	328	288	278	259	365	380	424	4,317
63	58	663	294	260	318	291	227	237	191	187	187	246	258	284	2,980
276	278	3,597	1,111	950	1,189	1,139	1,078	1,016	1,214	1,057	929	994	1,032	1,190	12,899
228	231	2,827	987	888	1,047	995	966	855	975	896	902	904	935	1,116	11,466
13	15	191	45	35	44	55	43	45	59	32	34	43	52	47	534
..	..	..	..	1	..	1	..	2	1	..	1	1	..	..	7

Report of the Bureau of Records.

Table of Mortality from the Principal

Cause of Death.	Borough of Queens.										
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Total, all causes.....	292	265	342	317	296	310	398	366	288	331	317
1. Typhoid fever.....	2	..	2	1	4	1	2	6	6	7	4
2. Typhus fever.....	..	..	..	..	..	..	..	..	..	..	..
3. Malarial fever.....	..	..	..	..	1	..	3	..	1	..	..
4. Small-pox.....	..	..	..	..	..	..	..	..	..	..	..
5. Measles.....	3	1	4	4	1	7	5	2	2	1	..
6. Scarlet fever.....	..	5	8	4	5	8	2	..	3	2	2
7. Whooping-cough.....	..	1	..	2	1	1	6	3	4	3	..
8. Diphtheria and croup.....	8	5	5	7	3	6	8	4	..	7	14
9. Influenza.....	1	..	2	3	3	..	..	..	..	..	..
10. Asiatic cholera.....	..	..	..	..	..	..	..	..	..	..	..
11. Cholera nostras.....	..	..	..	..	..	..	..	..	..	..	..
12. Other epidemic diseases.....	..	..	..	2	..	1	2	6	..	..	1
13. Tuberculosis pulmonalis.....	24	28	36	27	22	21	22	21	20	27	25
14. Tubercular meningitis.....	1	1	3	2	1	1	5	1	1	1	2
15. Other forms of tuberculosis.....	..	2	2	1	4	1	1	2	2	2	2
16. Cancer, malignant tumors.....	16	15	20	10	9	10	21	15	9	13	18
17. Meningitis, simple.....	4	3	3	..	2	..	3	5	3	1	1
(of which)											
17a. Cerebro-spinal meningitis.....	1	1	..	..	..	..	2	2	2	..	..
18. Apoplexy, congestion and softening of brain.....	3	..	..	1	1	1	1	2	3	2	4
19. Organic heart disease.....	24	31	25	29	36	43	43	37	25	35	37
20. Acute bronchitis.....	9	4	8	6	7	3	1	4	3	2	3
21. Chronic bronchitis.....	..	..	1	..	2	1	..	1	..	2	..
22. Pneumonia (excluding broncho-pneumonia).....	31	23	31	26	26	17	12	8	17	26	29
22a. Broncho-pneumonia.....	24	22	25	38	18	31	15	13	18	23	18
23. Diseases of stomach (cancer excepted).....	3	..	1	1	1	..	4	..	2	2	..
24. Diarrheas (under 5 years).....	4	5	10	12	14	24	96	92	48	42	13
25. Hernia (intestinal obstruction).....	3	4	6	3	2	4	3	3	4	1	4
26. Cirrhosis of liver.....	4	2	4	12	4	8	2	4	4	8	4
27. Bright's disease and nephritis.....	25	23	27	35	22	28	21	19	17	23	25
28. Diseases of women (not cancer).....	..	2	..	1	..	3	1	1	1	1	1
29. Puerperal septicemia.....	3	..	3	1	1	..	2	2	..	1	1
30. Other puerperal diseases.....	4	..	3	2	2	..	3	3	2	3	4
31. Congenital debility and malformations.....	31	18	20	15	25	23	18	17	22	17	29
32. Old age.....	4	3	9	6	6	5	10	..	5	7	9
33. Violent deaths.....	23	17	25	22	24	24	36	26	17	23	19
a. Sunstroke.....	..	..	..	..	..	6	3	..	..	..	..
b. Other accidents.....	18	14	19	16	19	16	29	23	15	17	18
c. Homicide.....	..	..	..	2	1	..	..	..	..	..	1
d. Suicide.....	5	3	6	4	4	2	4	3	2	6	..
34. All other causes.....	37	49	59	44	46	36	45	55	44	38	44
35. Ill-defined causes.....	1	1	..	..	3	2	5	14	5	8	4
Under one year.....	68	40	63	46	56	65	120	118	84	76	61
One year and under two years.....	8	10	17	21	13	24	25	25	25	27	6
Total under five years.....	96	59	89	76	79	108	168	158	127	120	90
Sixty-five years and over.....	62	61	76	67	50	61	58	53	35	57	66
Seventy years and over.....	38	39	52	42	28	44	46	31	21	34	48
Males.....	165	122	169	161	166	160	210	184	147	171	166
Females.....	127	143	173	156	130	150	188	182	141	160	151
Colored.....	11	5	9	9	13	9	8	4	4	4	9
Chinese.....	..	..	..	..	..	..	..	..	..	..	..

Report of the Bureau of Records.

Causes of Death During the Year 1909.

Borough of Richmond.														
Dec.	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
316	3,838	117	114	138	142	111	104	144	149	123	130	115	128	1,515
2	37	3	1	..	..	..	1	..	..	1	2	1	2	11
..
..	5	..	..	..	..	..	..	..	..	..	..	1	..	1
..
..	30	1	1	3	1	..	1	2	1	1	..	1	..	12
3	42	3	1	2	..	3	1	..	..	..	..	..	..	10
2	23	..	..	..	..	..	..	..	..	3	2	1	..	6
6	73	1	4	3	3	..	1	1	1	1	1	2	2	20
1	10	..	..	1	3	..	..	..	..	..	..	..	..	4
..
..
1	13	..	1	..	..	..	..	1	..	..	..	..	..	2
36	309	8	15	18	19	11	10	13	18	9	12	13	13	159
1	20	..	2	1	2	..	2	1	..	3	..	..	1	12
4	23	..	1	..	1	..	1	1	..	..	..	1	..	5
14	170	7	7	5	8	8	5	6	9	8	6	8	8	85
4	29	1	1	1	2	1	1	..	1	1	1	..	1	11
..	8	..	..	1	1	1	..	..	..	..	1	..	..	4
2	20	5	5	3	3	..	1	2	3	2	4	6	5	39
30	395	13	13	20	16	12	9	9	11	12	9	12	16	152
8	58	2	2	1	..	1	..	..	..	..	5	..	3	14
1	8	..	..	..	..	..	1	..	..	..	1	1	..	3
33	279	7	12	16	24	13	6	..	1	1	4	6	10	100
30	275	9	5	6	4	6	1	11	9	3	3	7	11	75
1	15	..	..	2	5	1	..	..	1	..	5	1	1	16
10	370	..	2	2	..	2	4	20	32	34	16	1	..	113
2	42	3	..	..	1	1	1	2	..	..	..	..	1	9
6	62	2	2	4	1	2	6	4	2	3	2	3	1	32
32	297	19	12	12	15	12	17	11	12	10	12	12	18	162
..	11	..	..	..	..	2	..	1	1	..	1	..	..	5
2	16	..	..	..	2	..	..	..	..	1	..	..	..	3
1	27	1	1	..	..	1	1	4	2	2	..	1	..	13
16	251	8	12	8	7	9	4	5	11	7	7	9	8	95
5	69	1	2	1	..	..	4	2	5	4	6	2	1	28
23	279	4	5	11	6	8	12	23	9	8	5	7	9	107
..	9	..	..	..	..	..	2	..	1	..	..	..	..	3
17	221	3	3	8	5	8	9	18	8	7	4	5	8	86
1	5	..	..	1	..	..	..	2	..	1	..	..	..	4
5	44	1	2	2	1	..	1	3	..	..	1	2	1	14
40	537	19	7	17	18	16	13	17	9	5	17	18	15	171
..	43	..	..	1	1	2	1	8	11	4	9	1	2	40
54	851	20	24	17	12	15	10	41	55	37	33	15	18	297
17	218	5	2	4	4	7	4	7	13	15	7	4	5	77
88	1,258	30	31	26	17	24	19	56	75	58	47	23	30	436
56	702	39	22	33	38	30	29	28	24	16	32	35	35	361
41	464	31	16	27	28	22	18	20	18	15	23	22	23	263
171	1,992	72	79	81	78	65	61	77	93	69	74	67	68	884
145	1,846	45	35	57	54	40	43	67	56	54	56	48	60	631
5	90	2	2	4	3	2	5	4	4	1	4	3	1	35
..

Report of the Bureau of Records.

Deaths of Males by Age, and Cause of Death, City of

Cause of Death.	Total both Sexes.	All Ages.	Under 1 Year.	1	2	3	4	Total Under 5.	5	10	15
I.—General Diseases.											
1. Typhoid fever.....	564	376	3	2	3	2	5	15	13	22	30
2. Typhus fever.....	..	..	..	..	..	..	..	..	..	..	..
3. Relapsing fever.....	..	..	..	..	..	..	..	..	..	..	..
4. Malarial fever.....	40	27	..	2	1	1	2	6	..	..	2
5. Small-pox.....	2	2	..	..	..	..	..	..	..	..	..
6. Measles.....	997	504	138	214	85	28	12	477	21	1	1
7. Scarlet fever.....	786	402	25	73	67	65	40	270	87	28	9
8. Whooping cough.....	401	178	96	45	17	9	4	171	5	1	..
9. Diphtheria and croup.....	1,714	903	121	268	185	118	79	771	112	8	6
10. Influenza.....	335	151	17	7	2	1	1	28	4	2	2
11. Miliary fever.....	..	..	..	..	..	..	..	..	..	..	..
12. Asiatic cholera.....	..	..	..	..	..	..	..	..	..	..	..
13. Cholera nostras.....	..	..	..	..	..	..	..	..	..	..	..
14. Dysentery.....	94	45	12	..	..	1	3	16	1	2	1
15. Plague.....	..	..	..	..	..	..	..	..	..	..	..
16. Yellow fever.....	..	..	..	..	..	..	..	..	..	..	..
17. Leprosy.....	1	1	..	..	..	..	..	..	..	..	..
18. Erysipelas.....	311	159	67	..	1	..	..	68	1	1	1
19. Other epidemic diseases.....	16	9	1	1	2	1	1	6	1	..	..
20. Pyæmia, septicæmia ..	110	71	11	1	3	1	..	16	3	4	3
21. Glanders.....	3	2	..	..	..	..	..	..	..	..	..
22. Malignant pustule.....	5	5	..	..	..	..	..	..	..	..	..
23. Hydrophobia.....	7	5	..	..	..	..	..	..	3	1	..
24. Actinomycosis.....	4	1	..	..	..	..	..	..	..	..	..
24a. Trichinosis.....	1	1	..	..	..	..	..	..	..	..	..
25. Pellagra.....	1	..	..	..	..	..	..	1	..	..	..
26. Tuberculosis of larynx.....	48	34	1	..	..	..	..	1	..	..	..
27. Tuberculosis of lungs.....	8,643	5,559	52	37	15	6	6	116	23	24	246
28. Tubercular meningitis.....	806	467	99	110	72	37	30	348	44	20	11
29. Abdominal tuberculosis.....	171	97	17	10	3	6	1	37	6	3	5
30. Potts' disease.....	58	38	2	2	..	2	..	6	3	8	4
31. Cold abscess.....	4	2	..	1	..	..	..	1	..	..	1
32. White swelling.....	31	15	..	1	1	..	2	4	1	3	1
33. Tuberculosis of other { organs.....	79	48	4	2	2	..	..	8	3	2	2
34. General tuberculosis.....	71	35	7	2	..	..	1	10	..	3	4
35. Scrofula.....	2	2	1	1	..	..	..	2	..	..	..
36. Syphilis.....	396	228	121	7	1	..	1	130	2	1	1
37. Gonorrhœa (adults).....	12	5	..	..	..	..	..	..	..	..	..
38. Gonorrhœa (children).....	10	4	4	..	..	..	..	4	..	..	..
39. Cancer, etc., of the { mouth.....	131	116	1	..	..	..	..	1	..	1	..
40. Cancer of stomach, { liver.....	1,421	753	..	1	..	..	1	2	..	..	1
41. Cancer of intestines, { rectum.....	459	223	..	..	..	..	..	..	1	..	..
42. Cancer of female { genital organs.....	557	..	..	..	..	..	..	..	..	..	..
43. Cancer of the breast.....	318	4	..	..	..	..	..	..	..	..	..
44. Cancer of the skin.....	70	39	..	..	..	..	..	..	..	..	..
45. Cancer of other or- gans and unspeci- fied.....	532	307	..	2	1	1	2	6	3	5	4
46. Other tumors (except of female genital organs).....	65	26	..	..	1	..	..	1	1	1	..
47. Acute articular rheu- matism.....	401	187	2	1	1	5	7	16	31	21	15
48. Chronic rheumatism and gout.....	119	61	..	..	..	..	..	..	3	2	..
49. Scurvy.....	12	7	5	1	..	..	..	6	..	..	..
50. Diabetes.....	696	288	..	1	..	..	1	2	1	6	5
51. Exophthalmic goitre.....	50	5	..	..	..	..	..	..	..	..	..
52. Addison's disease.....	16	9	..	..	..	..	..	..	..	..	1
53. Leukæmia.....	78	43	1	1	..	1	..	3	2	5	2
54. Anæmia, chlorosis.....	120	43	1	1	1	..	..	3	3	..	..
55. Other general diseases.....	3	1	..	..	..	..	..	..	..	..	..
56. Alcoholism, acute and chronic.....	533	431	..	..	..	..	..	..	..	..	..

Report of the Bureau of Records.

New York, for the Year Ending December 31, 1909.

20	25	30	35	40	45	50	55	60	65	70	75	80	85 and Over.	Colored.	Chinese.
59	64	50	46	26	21	17	5	5	1	2	..	..	..	7	..
..
..
4	..	1	..	2	1	..	3	1	1	2	2	2	..	2	..
..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..
..
2	2	1	1	..	..	..	..	..	..	..	1	..	..	13	..
3	5	7	9	9	9	13	7	14	11	13	5	7	3	15	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..
..
..	1	1	1	4	3	..	1	3	3	2	2	3	1	..	..
..
..
..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
2	4	8	3	15	13	9	13	8	5	3	4	..	1	4	..
..
3	7	5	6	3	9	3	2	4	1	2	..	..	..	2	..
..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..
..	..	1	..	..	..	1	1	1	..	..	..	..	..	..	..
..
..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
..
3	3	1	8	5	5	3	3	..	1	..	1	..	..	..	..
540	694	797	852	753	568	403	229	148	97	41	21	4	3	272	31
11	12	8	5	4	2	1	1	..	..	..	..	..	..	20	1
5	9	4	7	6	4	5	..	2	1	1	2	..	..	5	..
4	3	2	2	4	..	1	1	..	..	..	..	..	..	2	..
..
2	..	..	2	1	1	..	..	..	..	..	..	..	..	1	..
6	3	3	2	2	3	6	2	4	..	..	1	..	1	2	..
3	3	..	2	1	5	1	1	..	..	2	..	..	..	1	..
..
2	7	17	20	15	18	7	3	3	1	..	1	..	..	13	1
..	1	4	..	..	..	..	..	..	..	..	..	..	..	..	..
..
1	..	1	4	8	18	13	20	13	15	12	6	1	2	1	1
6	3	17	31	54	83	95	109	119	104	66	42	16	5	4	1
..	7	5	11	20	20	21	28	37	30	27	13	2	1	2	1
..
..	..	..	..	..	1	..	1	..	..	1	..	1	..	..	..
..	..	1	..	1	4	5	6	7	4	8	3	..	..	..	..
5	9	7	16	16	33	34	38	37	44	32	12	3	3	2	..
..	1	..	5	3	5	1	2	3	3	..	..	..	..	..	..
13	10	6	5	16	8	12	9	8	5	7	4	..	1	5	1
2	2	2	4	3	3	7	3	9	11	4	3	2	1	..	..
..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
6	8	9	12	13	34	39	41	41	36	17	14	4	..	2	1
..	1	..	..	1	..	1	1	1	..	..	..	..	..	..	..
1	1	1	2	1	..	..	2	..	..	..	..	..	..	..	..
2	2	5	2	5	3	6	3	1	2	..	..	..	..	2	..
2	1	2	2	5	5	6	4	6	3	1	..	..	..	..	..
..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
3	25	42	83	82	72	53	27	18	12	9	3	2	..	4	..

Report of the Bureau of Records.

Deaths of Males by Age, and Cause of Death, City of New

Cause of Death.	Total both Sexes.	All Ages.	Under 1 Year.	1	2	3	4	Total Under 5.	5	10	15
57. Lead poisoning.....	15	15	..	..	..	..	..	..	..	..	..
58. Other chronic poison- ings of occupation. }	..	..	..	..	..	..	..	..	..	..	..
59. Other chronic poison- ings..... }	5	3	1	..	..	..	..	1	..	..	..
II.—Diseases of Nervous System and Organs of Sense											
60. Encephalitis.....	26	12	2	3	1	1	..	7	..	..	..
61. Simple meningitis....	676	397	121	50	39	28	10	248	28	13	12
61a. (Of which) cerebro- spinal meningitis }	326	191	59	17	20	17	7	120	21	9	9
62. Locomotor ataxia.....	89	67	..	..	..	..	..	..	..	..	..
63. Other diseases of } spinal cord..... }	222	131	10	13	6	6	4	39	3	2	1
64. Apoplexy, congestion of brain..... }	896	457	2	..	..	..	..	2	..	..	1
65. Softening of brain....	49	36	..	..	..	..	..	..	..	..	..
66. Paralysis unspecified...	128	57	3	..	..	..	1	4	..	..	..
67. General paresis.....	176	125	..	..	..	..	..	..	..	..	..
68. Other forms of insanity	48	21	..	..	..	..	..	..	..	..	..
69. Epilepsy.....	116	63	4	1	2	..	..	7	2	3	3
70. Convulsions (not pu- erperal)..... }	..	..	..	..	..	..	..	..	..	..	..
71. Convulsions of infants	457	267	222	37	2	6	..	267	..	..	..
72. Tetanus, trismus.....	53	41	16	1	..	..	..	17	3	4	3
73. Chorea.....	4	1	..	1	..	..	..	1	..	..	..
74. Other nervous diseases	175	89	2	7	2	1	3	15	8	4	4
75. Diseases of the eyes...	3	1	..	..	..	..	..	..	..	..	..
76. Diseases of the ears...	142	78	23	8	3	2	3	39	8	2	7
III.—Diseases of Circulatory System.											
77. Pericarditis.....	48	24	..	..	2	..	1	3	1	2	3
78. Acute endocarditis.....	841	422	9	5	4	4	1	23	9	15	12
79. Organic heart diseases.	6,854	3,320	10	..	3	3	8	24	43	51	59
80. Angina pectoris.....	175	91	..	..	..	..	..	..	..	..	..
81. Diseases of arteries, } aneurism, etc..... }	1,928	962	..	..	..	..	..	..	..	..	..
82. Embolism, thrombosis	192	91	3	..	..	..	..	3	1	2	..
83. Diseases of veins } (hemorrhoids, var- ices, phlebitis, etc.) }	28	14	1	1	..	..	..	2	..	..	1
84. Diseases of lymphatics } (lymphangitis, etc.) }	29	20	10	1	3	1	..	15	1	..	..
85. Hemorrhage.....	79	46	32	1	1	..	..	34	1	1	..
86. Other diseases of cir- culatory system.... }	..	..	..	..	..	..	..	..	..	..	..
IV.—Diseases of Respiratory System.											
87. Diseases of nasal fossæ	10	5	1	..	..	..	..	1	..	..	..
88. Diseases of the larynx.	36	21	4	4	1	1	1	11	1	..	..
89. Diseases of thyroid } gland..... }	8	1	..	..	..	..	..	..	1	..	..
90. Acute bronchitis.....	1,051	518	350	75	16	8	2	451	3	..	2
91. Chronic bronchitis....	311	160	10	4	2	..	..	16	1	..	2
92. Broncho-pneumonia....	5,360	2,747	1,283	576	208	65	38	2,170	50	20	9
93. Pneumonia.....	5,254	2,971	308	350	108	45	22	733	63	30	45
94. Pleurisy.....	323	181	31	29	14	3	2	79	5	2	4
95. Congestion of lungs, } pulmonary apoplexy }	77	36	10	..	..	..	..	10	..	..	..
96. Gangrene of lung.....	25	15	..	..	..	..	..	..	..	..	..
97. Asthma.....	161	77	1	..	..	..	..	1	..	..	..
98. Pulmonary emphysema	56	38	1	..	..	..	..	1	..	..	..
99. Other diseases of re- spiratory system } (phthisis excepted) }	74	47	..	1	..	..	..	1	1	..	1

Report of the Bureau of Records.

York, for the Year Ending December 31, 1909—Continued.

20	25	30	35	40	45	50	55	60	65	70	75	80	85 and Over.	Colored.	Chinese.
..	1	2	2	3	4	1	2	..	..	..	..	..	..	..	..
..
1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
..	2	..	1	1	1	..	..	..	..	..	..	..	..	..	..
16	7	13	16	14	10	2	12	4	2	..	..	..	..	14	..
11	5	6	2	2	3	..	2	..	1	..	..	..	..	4	..
..	..	..	7	11	9	10	11	7	4	6	1	1	..	2	..
3	7	5	6	4	4	10	10	11	14	3	6	..	3	5	..
..	6	16	18	27	38	66	59	77	75	35	22	8	7	10	..
..	3	..	..	2	..	3	6	5	8	3	2	4	..	..	..
..	..	2	3	1	1	5	6	11	10	3	7	2	2	1	1
..	8	8	16	21	18	15	8	8	7	7	5	4	..	..	..
1	..	4	..	1	2	3	2	2	1	2	1	1	..	1	..
8	7	6	8	3	1	3	4	3	1	3	1	..	..	3	..
..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	18	..
3	2	2	5	1	..	..	..	1	..	..	..	..	..	..	..
..
2	5	14	5	10	6	4	4	2	4	1	..	..	1	1	..
3	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
..	2	1	1	2	5	5	1	1	1	..	..	..	..	2	..
..
63	15	30	37	36	28	37	40	35	33	25	22	..	8	8	..
..	101	133	192	227	256	350	317	422	374	307	209	9	66	78	7
..	..	..	5	6	5	15	16	11	18	12	2	126	..	1	..
1	3	10	21	38	56	73	89	106	129	154	139	1	60	17	1
2	1	1	8	4	1	11	10	11	13	9	9	83	3	..	..
..	2	2	..	2	1	..	..	2	1	..	1	2	..	..	1
..	..	1	..	..	2	1	..	..	..	..	..	..	..	2	..
2	1	1	1	1	1	1	..	..	2	..	..	..	..	3	..
..
2	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..
..	..	2	1	2	2	1	1	..	..	..	..	..	..	1	..
..
1	3	1	4	1	2	4	7	5	4	9	4	6	10	13	..
6	6	10	6	8	6	9	11	15	12	18	14	13	7	7	1
16	6	24	40	38	42	36	38	59	52	60	43	21	23	92	3
101	131	179	248	252	237	195	158	177	168	119	75	36	24	35	8
4	10	3	15	11	13	4	9	13	3	2	2	1	1	1	..
4	2	..	2	2	1	3	..	..	3	6	1	3	1	1	..
..	..	1	..	1	3	4	..	3	2	..	1	..	..	1	..
..	..	3	2	3	5	12	5	10	14	10	3	6	3	..	..
..	1	1	..	1	1	5	3	5	5	10	5	..	..	..	1
2	3	9	4	6	4	7	5	1	2	1	..	..	..	2	..

Report of the Bureau of Records.

Deaths of Males by Age, and Cause of Death, City of New

Cause of Death.	Total both Sexes.	All Ages.	Under 1 Year.	1	2	3	4	Total Under 5.	5	10	15
V.—Diseases of Digestive System.											
100. Diseases of mouth and adnexa.....	29	16	4	1	..	1	..	6	1	..	1
101. Diseases of pharynx.....	77	45	14	2	3	2	..	21	6	2	5
102. Diseases of œsophagus.....	11	11	1	..	..	1	..	2	1	..	1
103. Ulcer of the stomach.....	182	117	..	..	..	..	..	..	..	..	4
104. Other diseases of stomach (cancer excepted).....	300	148	59	10	1	2	2	74	1	..	..
105. Diarrhœa and enteritis (under two years).....	5,126	2,765	2,295	470	..	..	..	2,765	..	..	..
(of which chronic diarrhœa.....)	..	..	..	..	..	..	..	..	..	..	..
106. Diarrhœa and enteritis (two years and over).....	641	301	..	..	98	34	17	149	19	7	..
107. Intestinal parasites.....	4	3	..	..	1	..	..	1	1	..	..
108. Hernia, intestinal obstruction.....	558	284	57	6	3	3	3	72	8	2	2
109. Other diseases of intestines.....	86	50	6	3	..	..	1	10	1	..	..
110. Acute yellow atrophy of liver.....	16	7	1	..	..	..	..	1	..	..	..
111. Hydatid tumor of liver.....	7	5	..	..	..	..	..	..	..	..	..
112. Cirrhosis of liver.....	1,080	698	1	..	..	1	..	2	1	..	..
113. Biliary calculi.....	105	31	..	..	..	..	..	..	..	..	..
114. Other diseases of liver.....	154	65	2	..	..	..	..	2	2	..	..
115. Diseases of spleen.....	7	5	1	1	..	..	..	2	..	..	..
116. Simple peritonitis (non-puerperal).....	36	22	4	..	..	..	..	4	1	..	1
117. Other diseases of digestive system (except tuberculosis and cancer).....	30	17	1	..	..	..	..	1	..	..	..
118. Appendicitis and iliac abscess.....	566	340	2	2	6	4	4	18	27	35	34
VI.—Diseases of Genito-urinary System.											
119. Acute nephritis.....	653	339	32	12	13	7	5	69	11	3	12
120. Bright's disease.....	4,869	2,522	9	5	1	2	2	19	9	10	18
121. Other diseases of kidneys and adnexa.....	97	60	2	3	..	..	..	5	..	..	1
122. Urinary calculus.....	16	12	..	..	..	..	..	..	..	..	1
123. Diseases of bladder.....	66	56	..	..	..	..	..	..	..	..	..
124. Diseases of urethra, urinary abscess, etc.....	21	19	..	..	..	..	..	..	..	..	..
125. Diseases of the prostate.....	92	92	..	..	..	..	..	..	..	..	..
126. Non-venereal diseases of male genital organs.....	1	1	..	..	..	..	..	..	..	..	..
127. Metritis.....	9	..	..	..	..	..	..	..	..	..	..
128. Uterine hemorrhage (not puerperal).....	2	..	..	..	..	..	..	..	..	..	..
129. Uterine tumor (not cancer).....	90	..	..	..	..	..	..	..	..	..	..
130. Other diseases of uterus.....	27	..	..	..	..	..	..	..	..	..	..
131. Ovarian cysts and tumors.....	54	..	..	..	..	..	..	..	..	..	..
132. Other diseases of female genital organs.....	119	..	..	..	..	..	..	..	..	..	..
133. Diseases of breast (not puerperal, nor cancer).....	3	..	..	..	..	..	..	..	..	..	..
VII.—Puerperal Diseases.											
134. Accidents of pregnancy.....	132	..	..	..	..	..	..	..	..	..	..
135. Puerperal hemorrhage.....	41	..	..	..	..	..	..	..	..	..	..

York, for the Year Ending December 31, 1909—Continued.

261

Report of the Bureau of Records.

Deaths of Males by Age, and Cause of Death, City of New

Cause of Death.	Total both Sexes.	All Ages.	Under 1 Year.	1	2	3	4	Total Under 5.	5	10	15
136. Other accidents of labor	102	..	..	..	..	..	..	..	..	..	..
137. Puerperal septicaemia.	250	..	..	..	..	..	..	..	..	..	..
138. Puerperal albuminuria and convulsions	160	..	..	..	..	..	..	..	..	..	..
139. Puerperal phlegmasia alba dolens	2	..	..	..	..	..	..	..	..	..	..
140. Other accidents of parturition, sudden death	31	..	..	..	..	..	..	..	..	..	..
141. Puerperal diseases of breast	1	..	..	..	..	..	..	..	..	..	..
VIII.—Diseases of Skin and Cellular Tissue.											
142. Gangrene	77	35	1	2	..	..	..	3	..	..	..
143. Carbuncle	28	18	6	..	..	..	..	6	..	..	..
144. Phlegmon, acute abscess	93	56	13	7	..	1	..	21	1	1	2
145. Other diseases of skin and adnexa	38	23	13	..	1	..	..	14	..	..	1
IX.—Diseases of Locomotory System.											
146. Diseases of bones (non-tuberculous) ..	192	113	26	11	6	..	..	43	11	6	4
147. Arthritis, other diseases of joints (except tuberculosis and rheumatism) ..	11	6	..	..	..	..	..	..	..	..	..
148. Amputation .....	..	..	..	..	..	..	..	..	..	..	..
149. Other diseases of organs of locomotion ..	..	..	..	..	..	..	..	..	..	..	..
X.—Malformations.											
150. Congenital malformations	648	366	333	15	7	2	..	357	4	3	1
XI.—Diseases of Infancy.											
151. Congenital debility, icterus and sclerema (of which)	3,795	2,153	2,149	1	2	..	1	2,153	..	..	..
151a. Injury during birth ..	400	237	236	..	..	..	1	237	..	..	..
152. Other diseases peculiar to infancy	79	49	49	..	..	..	..	49	..	..	..
153. Neglect	230	129	128	1	..	..	..	129	..	..	..
XII.—Diseases of Old Age.											
154. Senile debility	597	206	..	..	..	..	..	..	..	..	..
XIII.—External Causes.											
155. Suicide by poison	129	88	..	..	..	..	..	..	..	..	2
156. Suicide by asphyxia ..	325	238	..	..	..	..	..	..	..	..	6
157. Suicide by hanging or strangulation	74	60	..	..	..	..	..	..	..	..	2
158. Suicide by drowning ..	11	8	..	..	..	..	..	..	..	..	..
159. Suicide by firearms ..	245	229	..	..	..	..	..	..	..	1	10
160. Suicide by cutting instruments	47	43	..	..	..	..	..	..	..	..	..
161. Suicide by precipitation from height	51	29	..	..	..	..	..	..	..	..	..
162. Suicide by crushing ..	8	5	..	..	..	..	..	..	..	..	..
163. Suicide by other methods .....	..	..	..	..	..	..	..	..	..	..	..
164. Fractures	58	44	1	1	..	..	..	2	1	1	2
165. Dislocations	3	2	..	..	..	..	..	..	..	..	..
166. Other accidental injuries	1,712	1,370	5	12	33	27	25	102	117	65	51
167. Burn, by fire, scald ..	447	193	11	26	29	21	11	98	18	5	9
168. Burning by corrosive substances	2	2	..	..	..	..	..	..	..	..	..
169. Sunstroke	130	73	17	1	2	2	1	23	..	..	2

Report of the Bureau of Records.

York, for the Year Ending December 31, 1909—Continued.

[illegible]

Report of the Bureau of Records.

Deaths of Males by Age, and Cause of Death, City of New

Cause of Death.	Total both Sexes.	All Ages.	Under 1 Year.	1	2	3	4	Total Under 5.	5	10	15
170. Freezing.....	5	5	..	..	..	..	..	..	..	..	..
171. Electrical shock.....	11	11	..	..	..	..	..	..	..	..	1
172. Accidental drowning..	467	433	1	1	..	..	1	3	37	26	41
173. Inanition (starvation).	3	2	..	..	..	..	..	..	..	..	..
174. Inhalation of noxious gas, not suicidal... {	286	187	1	..	..	1	..	2	1	2	10
175. Other acute poisoning.	95	51	3	1	1	2	3	10	5	2	..
176. Other external violence..... {	294	194	29	1	4	1	1	36	3	5	12
(Of which)											
a. Homicide, by blows.	36	29	1	..	..	..	..	1	..	..	1
b. Homicide, by sharp instruments..... {	27	22	..	..	..	..	..	..	1	1	..
c. Homicide, by gunshot..... {	102	81	..	..	..	..	..	..	..	2	10
d. Homicide, by poison..... {	2	2	..	..	..	..	..	..	..	..	..
e. Homicide, by other methods..... {	15	6	1	..	1	..	..	2	..	..	..
XIV.—Ill-defined or Not Specified Causes.											
177. Dropsy.....	1	..	..	..	..	..	..	..	..	..	..
178. Sudden death, not puerperal..... {	..	..	..	..	..	..	..	..	..	..	..
179. Ill-defined causes.....	555	294	269	22	1	..	..	292	..	..	..
I.—General diseases...	21,324	11,937	810	794	464	284	200	2,552	378	175	358
a. Tuberculous diseases..... {	9,911	6,295	182	165	93	51	40	531	80	63	274
b. Cancer.....	3,488	1,442	1	3	1	1	3	9	4	6	5
II.—Diseases of nervous system and organs of sense..... {	3,260	1,843	405	121	55	44	21	646	52	28	31
III.—Diseases of circulatory system..... {	10,175	4,990	65	8	13	8	10	104	56	71	75
IV.—Diseases of respiratory system..... {	12,746	6,817	1,999	939	349	122	65	3,474	124	53	63
V.—Diseases of digestive system..... {	9,015	4,930	2,448	495	112	48	27	3,130	69	46	48
VI.—Diseases of genito-urinary system..... {	6,119	3,101	43	20	14	9	7	93	20	13	32
VII.—Puerperal diseases..... {	719	..	..	..	..	..	..	..	..	..	..
VIII.—Diseases of skin and cellular tissue..... {	236	132	33	9	1	1	..	44	1	1	3
IX.—Diseases of locomotory system..... {	203	119	26	11	6	..	..	43	11	6	4
X.—Malformations.....	648	366	333	15	7	2	..	357	4	3	1
XI.—Diseases of infancy..... {	4,104	2,331	2,326	2	2	..	1	2,331	..	..	..
XII.—Diseases of old age..... {	597	206	..	..	..	..	..	..	..	..	..
XIII.—External causes.....	4,403	3,267	68	43	69	54	42	276	182	107	148
a. Suicide.....	890	700	..	..	..	..	..	..	..	1	20
b. Homicide.....	182	140	2	..	1	..	..	3	1	3	11
c. Accident.....	3,331	2,427	66	43	68	54	42	273	181	103	117
XIV.—Causes ill-defined..	556	294	269	22	1	..	..	292	..	..	..

Report of the Bureau of Records.

York, for the Year Ending December 31, 1909—Continued.

20	25	30	35	40	45	50	55	60	65	70	75	80	85 and over.	Colored.	Chinese.
..	I	..	..	I	..	I	..	I	..	I	..	..	..	..	..
..	4	I	5	..	..	..	..	..	..	..	..	..	..	..	..
45	57	31	43	52	44	23	11	12	3	4	I	..	..	7	..
..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..
12	14	18	18	17	16	16	12	17	10	4	12	4	2	2	..
I	8	4	7	2	3	2	I	2	2	I	I	..	..	2	..
19	23	29	18	14	15	7	4	3	3	3	..	..	..	10	4
4	..	5	4	4	5	I	..	I	2	I	..	..	..	I	..
3	2	5	4	I	3	2	..	..	..	..	..	..	..	..	..
9	17	14	8	5	6	3	3	I	I	2	..	..	..	2	2
I	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	2	I	..	I	..	..	..	..	..	..	..	..	..	I	..
..
..
..	..	I	..	..	..	I	..	..	..	..	..	..	..	16	..
698	894	1,015	1,148	1,082	957	765	569	493	392	252	140	47	22	393	39
574	727	815	880	776	588	420	237	154	99	44	25	4	4	303	32
12	19	31	62	99	159	168	202	213	197	146	76	23	11	9	3
36	49	71	86	98	95	126	123	132	129	62	46	20	13	57	I
79	124	180	265	315	353	489	473	588	570	507	383	221	137	109	9
136	162	233	320	326	316	280	237	289	266	235	148	86	69	215	13
70	76	107	138	169	205	214	177	164	133	80	57	26	21	99	5
60	87	142	208	235	288	328	298	372	314	260	196	101	54	79	4
..
2	5	4	4	6	5	10	7	8	8	7	7	5	5	3	..
10	7	4	7	4	6	2	I	6	5	2	..	..	I	6	..
I	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	75	..
..	..	..	..	..	..	..	I	3	19	24	50	38	71	5	..
228	317	313	314	309	300	244	158	149	109	47	42	14	10	63	5
52	68	66	73	82	88	90	56	46	38	14	5	I	..	7	I
17	22	25	16	11	14	6	3	2	3	3	..	..	..	4	2
159	227	222	225	216	198	148	99	101	68	30	37	13	10	52	2
..	..	I	..	..	..	I	..	..	..	..	..	..	..	16	..

Report of the Bureau of Records.

Deaths of Females by Age, and Cause of Death, City of

Cause of Death.	All Ages.	Under 1 Year.	1	2	3	4	Total Under 5.	5	10	15
I.—General Diseases.										
1. Typhoid fever.....	188	2	1	2	2	..	7	8	14	22
2. Typhus fever.....	..	..	..	..	..	..	..	..	..	..
3. Relapsing fever.....	..	..	..	..	..	..	..	..	..	..
4. Malarial fever.....	13	1	1	..	..	1	3	..	1	..
5. Small-pox.....	..	..	..	..	..	..	..	..	..	..
6. Measles.....	493	136	201	72	39	19	467	21	..	..
7. Scarlet fever.....	384	17	51	67	59	36	230	102	27	8
8. Whooping cough.....	223	110	60	19	19	7	215	7	1	..
9. Diphtheria and croup.....	811	83	227	136	125	76	647	129	20	4
10. Influenza.....	184	11	3	2	2	1	19	3	5	4
11. Miliary fever.....	..	..	..	..	..	..	..	..	..	..
12. Asiatic cholera.....	..	..	..	..	..	..	..	..	..	..
13. Cholera nostras.....	..	..	..	..	..	..	..	..	..	..
14. Dysentery.....	49	6	2	..	..	..	8	1	..	..
15. Plague.....	..	..	..	..	..	..	..	..	..	..
16. Yellow fever.....	..	..	..	..	..	..	..	..	..	..
17. Leprosy.....	..	..	..	..	..	..	..	..	..	..
18. Erysipelas.....	152	76	6	2	..	1	85	..	1	4
19. Other epidemic diseases.....	7	1	3	2	..	1	7	..	..	..
20. Pyæmia septicæmia.....	39	8	2	1	..	2	13	..	2	..
21. Glanders.....	1	..	..	..	..	..	..	..	..	..
22. Malignant pustule.....	..	..	..	..	..	..	..	..	..	..
23. Hydrophobia.....	2	..	..	..	..	..	..	..	1	..
24. Actinomycosis.....	3	..	..	..	..	..	..	..	..	..
24a. Trichinosis.....	..	..	..	..	..	..	..	..	..	..
25. Pellagra.....	1	..	..	..	..	..	..	..	..	..
26. Tuberculosis of larynx.....	14	..	..	..	..	..	..	..	1	..
27. Tuberculosis of lungs.....	3,081	33	35	11	8	11	98	29	74	271
28. Tubercular meningitis.....	339	83	72	46	28	16	245	47	12	13
29. Abdominal tuberculosis.....	74	7	8	3	1	1	20	5	5	1
30. Potts' disease.....	20	1	1	..	1	1	4	3	1	1
31. Cold abscess.....	2	1	..	..	..	1	2	..	..	..
32. White swelling.....	16	..	1	..	1	1	3	3	6	1
33. Tuberculosis of other organs.....	31	2	2	..	1	1	6	2	2	4
34. General tuberculosis.....	36	1	1	3	..	..	5	5	3	5
35. Scrofula.....	..	..	..	..	..	..	..	..	..	..
36. Syphilis.....	168	103	7	1	1	..	112	..	1	3
37. Gonorrhea (adults).....	7	..	..	..	..	..	..	..	..	1
38. Gonorrhea (children).....	6	6	..	..	..	..	6	..	..	..
39. Cancer, etc., of the mouth.....	15	..	..	..	..	..	..	1	..	1
40. Cancer of stomach, liver.....	668	1	..	..	..	..	1	..	..	..
41. Cancer of intestines, rectum.....	236	..	..	..	..	..	..	..	..	2
42. Cancer of female genital organs.....	557	..	..	..	..	..	..	..	..	3
43. Cancer of the breast.....	314	..	..	..	..	..	..	..	..	..
44. Cancer of the skin.....	31	1	..	..	..	..	1	..	..	..
45. Cancer of other organs and unspecified.....	225	4	1	3	3	..	11	2	2	4
46. Other tumors (except of female genital organs).....	39	2	1	1	1	..	5	2	1	1
47. Acute articular rheumatism.....	214	..	1	..	4	2	7	30	28	18
48. Chronic rheumatism and gout.....	58	..	..	..	..	..	..	1	1	1
49. Scurvy.....	5	3	..	1	..	1	5	..	..	..
50. Diabetes.....	408	..	1	2	..	..	3	1	5	6
51. Exophthalmic goitre.....	46	..	..	..	..	..	..	..	..	2
52. Addison's disease.....	6	..	..	..	..	..	..	..	..	..
53. Leukemia.....	35	2	2	1	1	1	7	3	..	3
54. Anemia, chlorosis.....	77	4	2	..	..	1	7	3	2	2
55. Other general diseases.....	2	..	2	..	..	..	2	..	..	..
56. Alcoholism, acute and chronic.....	102	..	..	..	..	..	..	..	..	1
57. Lead poisoning.....	..	..	..	..	..	..	..	..	..	..
58. Other chronic poisonings of occupation.....	..	..	..	..	..	..	..	..	..	..
59. Other chronic poisonings.....	2	..	..	..	..	..	..	..	..	..
II.—Diseases of Nervous System and Organs of Sense.										
60. Encephalitis.....	14	..	..	2	..	1	3	2	..	..
61. Simple meningitis.....	279	75	50	28	15	10	178	25	11	11
61a. (of which) cerebro-spinal meningitis.....	135	38	21	11	7	7	84	19	9	8

Report of the Bureau of Records.

New York, for the Year Ending December 31, 1909.

20	25	30	35	40	45	50	55	60	65	70	75	80	85 and over.	Colored.	Chinese.
30	27	23	26	7	6	5	3	4	1	2	2	1	..	6	..
..
..
3	..	2	2	1	..	..	..	..	..	..	1	..	..	..	..
..
1	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..
5	7	5	..	..	..	..	..	..	..	..	..	..	..	..	..
..
4	1	1	3	..	1	..	..	..	1	..	..	..	..	..	..
3	7	5	15	6	12	5	13	16	22	14	15	11	9	11	..
..
..
..
..	1	2	..	..	2	3	4	9	5	1	6	6	1	..	..
..
..
..
3	8	2	3	4	11	6	5	6	6	5	3	..	..	2	..
..
3	4	4	3	2	4	1	1	1	..	1	..	..	..	1	..
1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..
1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
..
1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..
1	3	3	2	..	..	1	2	..	..	1	..	..	..	..	..
435	474	433	409	279	207	127	93	67	45	26	13	4	..	185	..
6	4	4	1	..	3	2	2	..	..	..	..	..	..	15	..
1	10	5	4	3	1	2	1	..	4	3	1	1	..	4	..
..	2	2	1	2	..	..	..	2	..	..	1	..	..	1	..
..
..
3	..	1	6	3	1	2	..	..	1	..	..	..	..	2	..
5	2	4	2	1	..	..	2	..	2	..	..	..	..	6	..
..
5	6	8	6	8	10	3	2	3	..	..	..	..	..	..	..
1	..	2	1	1	..	..	..	1	..	..	1	..	..	17	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
..
1	7	..	..	2	1	1	2	1	1	4	1	..	..	..	..
3	6	10	30	55	72	90	94	110	77	63	40	10	8	11	..
1	14	15	11	16	25	29	28	29	20	14	9	9	..	3	..
..	5	28	49	86	98	72	81	55	30	17	11	10	2	12	..
1	..	11	31	37	38	38	42	39	28	23	12	6	4	4	..
7	4	4	1	1	2	1	3	3	6	5	2	4	1	..	..
..
3	2	1	2	2	2	1	4	1	5	5	2	..	..	..	..
16	9	10	18	7	11	18	5	12	10	9	3	1	2	3	..
..	..	1	2	4	5	6	5	4	13	8	4	3	..	1	..
..
4	8	10	16	14	30	53	70	60	59	37	22	6	4	2	..
7	2	1	7	9	2	7	..	3	2	1	1	1	..	..	..
2	1	1	..	..	..	1	..	1	..	..	..	..	..	..	..
3	3	3	..	..	2	2	2	2	..	..	..	..	..	..	..
6	6	6	2	8	5	10	5	6	4	4	1	..	..	2	..
..
2	7	17	24	12	13	11	7	4	3	1	..	..	..	1	..
..
..
..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..
..
6	2	..	..	1	2	..	1	..	2	..	..	..	1	..	..
4	5	4	6	10	6	3	2	2	3	5	1	..	1	9	..
..	2	2	1	4	1	..	..	..	1	..	..	..	..	3	..

Report of the Bureau of Records.

Deaths of Females by Age, and Cause of Death. City of

Cause of Death.	All Ages.	Under 1 Year.	1	2	3	4	Total Under 5.	5	10	15
62. Locomotor ataxia	22	..	..	..	..	..	..	..	..	..
63. Other diseases of spinal cord	91	7	6	3	3	3	22	2	3	1
64. Apoplexy, congestion of brain	439	1	..	..	..	..	1	1	1	..
65. Softening of brain	13	..	..	..	..	..	..	..	..	..
66. Paralysis, unspecified	71	..	..	..	..	..	..	..	..	1
67. General paresis	51	..	..	..	..	..	..	..	..	..
68. Other forms of insanity	27	..	..	..	..	..	..	1	..	1
69. Epilepsy	53	3	2	2	..	..	7	3	1	5
70. Convulsions (not puerperal) .....	..	..	..	..	..	..	..	..	..	..
71. Convulsions of infants	190	161	25	4	..	..	190	..	..	..
72. Tetanus, trismus	12	9	..	..	..	2	11	1	..	..
73. Chorea	3	..	..	..	..	..	..	..	..	1
74. Other nervous diseases	86	6	..	2	1	..	9	5	4	5
75. Diseases of the eyes	2	..	..	..	..	..	..	..	..	..
76. Diseases of the ears	64	17	6	2	2	..	27	3	5	2
III.—Diseases of Circulatory System.										
77. Pericarditis	24	2	..	..	..	..	2	1	1	2
78. Acute endocarditis	419	11	4	2	..	5	22	9	19	12
79. Organic heart diseases	3,534	11	5	2	10	10	38	55	65	77
80. Angina pectoris	84	..	..	..	..	..	..	..	..	..
81. Diseases of arteries, aneurism, { etc	966	1	..	..	..	..	1	..	..	..
82. Embolism, thrombosis	101	..	..	..	..	..	..	1	2	1
83. Diseases of veins (hemor- rhoids, varices, phlebitis, etc.)	14	3	..	..	..	..	3	..	..	..
84. Diseases of lymphatics (lym- phangitis, etc.)	9	4	3	..	..	..	7	..	..	..
85. Hemorrhage	34	20	2	3	..	..	25	1	1	..
86. Other diseases of circulatory system .....	..	..	..	..	..	..	..	..	..	..
IV.—Diseases of Respiratory System.										
87. Diseases of nasal fossæ	4	..	..	..	..	..	..	..	..	2
88. Diseases of the larynx	16	5	2	..	1	2	10	3	1	..
89. Diseases of thyroid gland	7	..	..	..	..	..	..	..	..	..
90. Acute bronchitis	533	316	81	19	9	3	428	6	2	..
91. Chronic bronchitis	151	7	..	..	..	..	7	3	2	7
92. Broncho-pneumonia	2,613	1,063	618	147	81	37	1,946	53	8	18
93. Pneumonia	2,283	288	202	85	50	22	647	53	25	39
94. Pleurisy	142	20	36	14	4	1	75	9	2	7
95. Congestion of lungs, pulmon- ary apoplexy	41	6	..	..	..	1	7	..	..	..
96. Gangrene of lung	10	..	..	..	..	..	..	..	..	..
97. Asthma	84	..	..	..	..	..	..	..	..	..
98. Pulmonary emphysema	16	..	..	..	..	..	..	..	..	..
99. Other diseases of respiratory system (phthisis excepted)	27	1	1	..	..	..	2	..	1	..
V.—Diseases of Digestive System.										
100. Diseases of mouth and adnexa	13	4	1	..	1	..	6	2	1	..
101. Diseases of pharynx	32	7	6	1	2	1	17	2	4	..
102. Diseases of esophagus .....	..	..	..	..	..	..	..	..	..	..
103. Ulcer of the stomach	65	..	..	..	..	1	1	..	1	5
104. Other diseases of stomach (cancer excepted)	152	42	1	2	3	2	50	5	1	..
105. Diarrhea and enteritis (under two years)	2,361	1,959	402	..	..	..	2,361	..	..	..
(Of which) chronic diarrhea .....	..	..	..	..	..	..	..	..	..	..
106. Diarrhea and enteritis (two years and over)	340	..	..	75	22	8	105	25	8	3
107. Intestinal parasites	1	..	..	..	..	..	..	..	..	..
108. Hernia, intestinal obstruction	274	31	2	2	..	2	37	7	3	4
109. Other diseases of intestines	36	7	1	1	1	..	10	1	..	..
110. Acute yellow atrophy of liver	9	1	..	..	1	..	2	1	..	..
111. Hydatid tumor of liver .....	..	..	..	..	..	..	..	..	..	1
112. Cirrhosis of liver	382	1	..	..	1	..	2	3	..	..
113. Biliary calculi	74	..	..	..	..	..	..	..	..	..
114. Other diseases of liver	89	3	..	..	1	1	5	1	..	..

Report of the Bureau of Records.

New York, for the Year Ending December 31, 1909—Continued.

20	25	30	35	40	45	50	55	60	65	70	75	80	85 and over.	Colored.	Chinese.
..	..	..	5	1	1	2	6	3	4	..	..	..	..	..	..
1	3	1	5	3	4	4	7	17	9	1	4	4	..	1	..
1	3	11	11	23	29	65	55	79	76	29	34	11	9	20	..
..	..	..	1	..	..	1	1	1	1	3	4	..	1	1	..
..	..	1	2	1	3	8	4	14	12	8	10	1	6	6	..
..	..	3	4	5	6	4	3	4	5	5	4	5	3	1	..
2	3	3	2	2	5	2	1	1	2	1	..	1	..	..	..
11	5	3	3	2	4	3	1	..	3	1	1	..	..	2	..
..
..
..
1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..
8	4	7	8	10	9	5	3	3	2	2	2	..	..	1	..
..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..
2	4	2	4	4	4	1	1	2	1	..	2	..	..	..	..
..	..	2	2	1	1	3	1	2	2	3	..	..	1	1	..
13	11	24	26	28	30	23	36	42	38	40	21	17	8	10	..
109	141	142	177	204	242	291	278	417	427	359	260	149	103	100	..
1	1	4	1	4	9	8	8	10	12	14	5	4	3	2	..
1	2	8	11	27	35	57	80	112	126	165	161	111	69	18	..
3	1	2	13	9	4	8	6	14	12	9	8	4	4	4	..
..	..	..	2	2	..	1	1	..	1	2	1	1	..	..	..
..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..
1	2	..	3	..	..	..	..	..	..	1	..	..	..	3	..
..
1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	1	1	..	1	1	1	1	..	..	..	1	1	..	..
..	..	2	..	1	4	4	7	10	16	14	11	13	15	16	..
21	6	2	3	6	6	9	8	11	21	19	17	13	9	7	..
21	25	13	32	17	19	42	33	85	65	77	66	56	37	79	..
51	74	97	133	113	118	128	142	183	169	141	91	53	26	93	..
5	7	4	5	6	3	2	2	5	4	2	2	1	1	4	..
2	..	..	..	2	..	..	..	6	5	6	3	4	6	2	..
..	..	3	2	1	..	1	2	1	..	..	..	..	..	..	..
..	3	2	1	3	3	1	8	15	8	16	14	8	2	1	..
..	..	..	2	..	1	1	1	3	..	3	4	2	1	..	..
3	1	2	2	4	2	2	1	2	3	1	..	1	..	1	..
2	1	..	..	..	..	1	..	1	..	..	..	1	..	1	..
..	..	2	..	1	..	..	1	..	..	1	..	..	..	1	..
3	7	4	11	6	9	3	4	3	4	..	..	..	..	2	..
1	4	9	7	9	3	5	10	6	12	9	6	9	6	5	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	55	..
..
9	8	9	12	13	8	10	17	16	19	26	25	18	9	7	..
..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9	9	10	13	23	28	22	23	23	13	24	19	3	4	6	..
..	2	8	3	2	..	1	..	..	1	5	1	1	1	1	..
1	3	1	1	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
3	12	17	40	59	48	49	45	45	25	19	10	5	..	7	..
..	5	3	8	4	8	10	9	12	5	2	5	2	1	1	..
2	7	4	6	10	6	9	8	13	7	4	3	2	2	3	..

Report of the Bureau of Records.

Deaths of Females by Age, and Cause of Death, City of

Cause of Death.	All Ages.	Under 1 Year.	1	2	3	4	Total Under 5.	5	10	15
115. Diseases of spleen.....	2	..	..	..	..	..	..	..	..	..
116. Simple peritonitis (non-puer- peral).....	14	1	1	..	2	..	4	..	..	..
117. Other diseases of digestive system (except tuberculosis and cancer).....	13	..	..	..	..	..	..	..	..	1
118. Appendicitis and iliac abscess..	226	2	..	1	..	4	7	23	27	25
VI.—Diseases of Genito-urinary System.										
119. Acute nephritis.....	314	13	11	9	4	6	43	16	8	6
120. Bright's disease.....	2,347	3	..	5	3	1	12	9	12	20
121. Other diseases of kidneys and adnexa.....	37	1	..	..	..	..	1	1	1	3
122. Urinary calculus.....	4	..	..	..	..	..	..	..	..	..
123. Diseases of bladder.....	10	..	..	..	..	..	..	..	..	..
124. Diseases of urethra, urinary abscess, etc.....	2	..	..	..	..	..	..	..	..	..
125. Diseases of the prostate.....	..	..	..	..	..	..	..	..	..	..
126. Non-venereal diseases of male genital organs.....	..	..	..	..	..	..	..	..	..	..
127. Metritis.....	9	..	..	..	..	..	..	..	..	..
128. Uterine hemorrhage (non- puerperal).....	2	..	..	..	..	..	..	..	..	..
129. Uterine tumor (not cancer).....	90	..	..	..	..	..	..	..	..	..
130. Other diseases of uterus.....	27	..	1	1	..	..	2	..	..	1
131. Ovarian cysts and tumors.....	54	..	..	..	..	..	..	..	..	1
132. Other diseases of female gen- ital organs.....	121	..	..	..	..	..	..	..	..	4
133. Diseases of breast (not puer- peral, nor cancer).....	1	1	..	..	..	..	1	..	..	..
VII.—Puerperal Diseases.										
134. Accidents of pregnancy.....	132	..	..	..	..	..	..	..	..	1
135. Puerperal hemorrhage.....	41	..	..	..	..	..	..	..	..	1
136. Other accidents of labor.....	102	..	..	..	..	..	..	..	..	1
137. Puerperal septicemia.....	250	..	..	..	..	..	..	..	..	10
138. Puerperal albuminuria and convulsions.....	160	..	..	..	..	..	..	..	..	13
139. Puerperal phlegmasia alba dolens.....	2	..	..	..	..	..	..	..	..	..
140. Other accidents of parturition, sudden death.....	31	..	..	..	..	..	..	..	..	..
141. Puerperal diseases of breast....	1	..	..	..	..	..	..	..	..	..
VIII.—Diseases of Skin and Cellular Tissue.										
142. Gangrene.....	42	2	..	..	1	..	3	..	..	..
143. Carbuncle.....	10	3	1	..	..	..	4	..	..	..
144. Phlegmon, acute abscess.....	37	13	3	1	..	..	17	..	1	3
145. Other diseases of skin and ad- nexa.....	15	7	2	..	..	..	9	..	..	..
IX.—Diseases of Locomotory System.										
146. Diseases of bones (non-tuber- culous).....	79	15	10	6	2	6	39	7	2	5
147. Arthritis, other diseases of joints (except tuberculosis and rheumatism).....	5	..	..	..	..	..	..	..	..	..
148. Amputation.....	..	..	..	..	..	..	..	..	..	..
149. Other diseases of organs of locomotion.....	..	..	..	..	..	..	..	..	..	..
X.—Malformations.										
150. Congenital malformations.....	282	262	9	4	..	1	276	4	..	..
XI.—Diseases of Infancy.										
151. Congenital debility, icterus and sclerema (of which).....	1,642	1,636	5	1	..	..	1,642	..	..	..
151a. Injury during birth.....	163	163	..	..	..	..	163	..	..	..
152. Other diseases peculiar to in- fancy.....	30	30	..	..	..	..	30	..	..	..
153. Neglect.....	101	101	..	..	..	..	101	..	..	..
XII.—Diseases of Old Age.										
154. Senile debility.....	391	..	..	..	..	..	..	..	..	..

Report of the Bureau of Records.

New York, for the Year Ending December 31, 1909—Continued.

20	25	30	35	40	45	50	55	60	65	70	75	80	85 and over.	Colored.	Chinese.
..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..
..	..	3	2	..	1	..	1	..	1	1	1	..	..	..	..
..	1	1	..	2	3	1	2	1	..	1	..	..	..	..	..
23	33	18	23	12	10	4	8	5	2	2	3	1	..	5	..
17	28	30	26	14	18	22	19	18	17	14	8	4	6	11	..
49	68	104	135	195	201	177	229	309	266	222	176	96	67	67	..
3	7	4	1	2	4	3	1	3	..	2	..	1	..	1	..
..	1	1	..	..	..	..	1	..	1	..	..	..	..	..	..
..	..	..	1	..	..	4	2	..	1	..	2	..	..	..	..
..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..
..
..
2	2	2	1	1	1	..	..	..	..	..	..	..	..	..	..
..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..
1	5	10	14	24	20	4	4	1	2	2	3	..	..	7	..
2	2	3	7	2	2	4	..	1	1	..	..	..	..	2	..
3	5	7	10	6	4	4	2	5	1	1	2	1	..	1	..
22	38	22	16	12	3	2	..	2	..	..	..	..	..	11	..
..
16	40	42	21	11	1	..	..	..	..	..	..	..	..	3	..
4	9	12	11	2	1	..	1	..	..	..	..	..	..	..	..
11	27	19	32	11	1	..	..	..	..	..	..	..	..	1	..
67	76	56	24	15	2	..	..	..	..	..	..	..	..	10	..
41	27	37	34	7	1	..	..	..	..	..	..	..	..	5	..
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
4	8	12	4	3	..	..	..	..	..	..	..	..	..	..	..
..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	1	..	..	2	2	4	4	1	8	8	5	4	5	..
1	..	..	..	..	1	2	1	..	..	..	..	1	..	..	..
..	1	2	2	3	1	1	2	1	..	..	3	..	..	..	..
..	..	..	..	..	1	1	1	2	..	..	1	..	..	..	..
5	4	2	3	2	3	1	1	1	3	1	..	..	..	..	..
..	2	..	..	1	2	..	..	..	..	..	..	..	..	..	..
..
..
..	..	1	1	..	..	..	..	..	..	..	..	..	..	2	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	55	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	..
..	..	..	..	..	..	1	5	10	29	53	92	82	119	8	..

Report of the Bureau of Records.

Deaths of Females by Age, and Cause of Death, City of

Cause of Death.	All Ages.	Under 1 Year.	1	2	3	4	Total Under 5.	5	10	15
XIII.—External Causes.										
155. Suicide by poison.....	42	..	..	..	..	..	..	..	..	2
156. Suicide by asphyxia.....	87	..	..	..	..	..	..	..	..	7
157. Suicide by hanging or strangulation.....	13	..	..	..	..	..	..	..	..	..
158. Suicide by drowning.....	3	..	..	..	..	..	..	..	..	1
159. Suicide by firearms.....	16	..	..	..	..	..	..	..	..	1
160. Suicide by cutting instruments.....	4	..	..	..	..	..	..	..	..	..
161. Suicide by precipitation from height.....	22	..	..	..	..	..	..	..	..	..
162. Suicide by crushing.....	3	..	..	..	..	..	..	..	..	..
163. Suicide by other methods.....	..	..	..	..	..	..	..	..	..	..
164. Fractures.....	14	1	..	..	..	..	1	..	..	1
165. Dislocations.....	1	..	..	..	..	..	..	..	..	..
166. Other accidental injuries.....	342	4	15	17	12	22	70	46	9	9
167. Burn, by fire, scald.....	254	12	15	21	24	23	95	45	10	5
168. Burning by corrosive substances.....	..	..	..	..	..	..	..	..	..	..
169. Sunstroke.....	57	9	2	..	..	3	14	..	..	..
170. Freezing.....	..	..	..	..	..	..	..	..	..	..
171. Electrical shock.....	..	..	..	..	..	..	..	..	..	..
172. Accidental drowning.....	34	..	..	..	..	..	..	2	2	1
173. Inanition (starvation).....	1	..	..	..	..	..	..	..	..	..
174. Inhalation of noxious gas, not suicidal.....	99	..	2	..	2	2	6	3	3	4
175. Other acute poisoning.....	44	3	3	..	2	1	9	4	..	4
176. Other external violence.....	100	12	..	2	1	..	15	2	1	8
(Of which)										
a. Homicide, by blows.....	7	..	..	..	..	..	..	..	..	1
b. Homicide, by sharp instruments.....	5	..	..	..	..	..	..	..	..	..
c. Homicide, by gunshot.....	21	..	..	..	..	..	..	..	1	2
d. Homicide, by poison.....	..	..	..	..	..	..	..	..	..	..
e. Homicide, by other methods.....	9	2	..	..	..	..	2	1	..	1
XIV.—Ill-defined or Not Specified Causes.										
177. Dropsy.....	1	1	..	..	..	..	1	..	..	..
178. Sudden death, not puerperal.....	..	..	..	..	..	..	..	..	..	..
179. Ill-defined causes.....	261	222	31	4	2	1	260	..	..	..
I.—General diseases.....	9,387	705	694	375	296	181	2,251	408	216	388
a. Tuberculous diseases.....	3,616	128	120	63	40	32	383	94	104	298
b. Cancer.....	2,046	6	1	3	..	..	13	3	2	10
II.—Diseases of nervous system and organs of sense.....	1,417	279	89	43	21	16	448	43	25	27
III.—Diseases of circulatory system.....	5,185	52	14	7	10	15	98	67	88	92
IV.—Diseases of respiratory system.....	5,929	1,706	940	265	145	66	3,122	127	41	73
V.—Diseases of digestive system.....	4,085	2,058	414	82	34	19	2,607	70	45	39
VI.—Diseases of genito-urinary system.....	3,018	18	12	15	7	7	59	26	21	35
VII.—Puerperal diseases.....	719	..	..	..	..	..	..	..	..	26
VIII.—Diseases of skin and cellular tissue.....	104	25	6	1	1	..	33	..	1	3
IX.—Diseases of locomotory system.....	84	15	10	6	2	6	39	7	2	5
X.—Malformations.....	282	262	9	4	..	1	276	4	..	..
XI.—Diseases of infancy.....	1,773	1,767	5	1	..	..	1,773	..	..	..
XII.—Diseases of old age.....	391	..	..	..	..	..	..	..	..	..
XIII.—External causes.....	1,136	41	37	40	41	51	210	102	25	43
a. Suicide.....	190	..	..	..	..	..	..	..	..	11
b. Homicide.....	42	2	..	..	..	..	2	1	1	4
c. Accident.....	904	39	37	40	41	51	208	101	24	28
XIV.—Causes ill-defined.....	262	223	31	4	2	1	261	..	..	..
Total females.....	33,772	7,151	2,261	843	559	363	11,177	854	464	731

Report of the Bureau of Records.

New York, for the Year Ending December 31, 1909—Continued.

20	25	30	35	40	45	50	55	60	65	70	75	80	85 and over.	Colored.	Chinese.
7 13	7 13	11 8	4 7	5 2	4 10	1 6	.. 5	.. 6	1 4	.. 3	.. 2	.. 1	....	....	....
..	1	2	1	3	3	2	..	..	..	..	1	..	..	..	..
1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
1	5	4	2	..	1	..	1	..	..	1	..	..	..	..	..
2	2	1	..	..	..	..	..	..	..	..	..	..	..	1	..
3	5	5	..	4	2	2	..	..	1	..	..	..	..	1	..
..	..	1	..	..	1	..	..	..	..	1	..	..	..	1	..
..
..	1	..	2	1	1	..	..	1	2	1	2	1	..	..	..
13	16	9	17	16	13	18	18	25	18	16	11	13	5	5	..
10	9	5	10	13	6	8	7	8	9	5	4	5	4	4	..
2	..	..	2	3	6	3	5	8	1	4	1	4	4	3	..
..
2	..	7	7	5	2	1	1	1	1	..	2	..	..	..	..
..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..
11	4	3	8	9	4	7	4	8	6	8	4	6	1	3	..
8	3	2	6	1	2	..	..	1	1	..	..	1	..	1	..
21	14	7	14	9	4	..	4	..	..	1	..	..	..	7	1
1	..	..	..	4	1	..	..	..	..	..	..	..	..	..	..
1	..	..	2	..	..	..	1	..	..	1	..	..	..	1	..
4	2	1	4	3	2	..	2	..	..	..	..	..	..	1	..
..
1	2	1	..	1	..	..	..	..	..	..	..	..	..	..	..
..
..	..	..	..	1	..	..	..	..	..	..	..	..	..	11	..
573	633	627	688	597	591	525	503	467	367	270	170	79	34	329	..
457 13	495 36	453 68	425 130	288 219	212 262	134 259	100 277	69 265	52 183	31 151	15 94	6 44	.. 17	213 34	..
32	30	36	51	62	73	99	85	126	120	55	62	22	21	53	..
128	158	182	236	275	321	391	411	597	618	593	456	286	188	138	..
85	117	126	181	153	157	191	206	322	291	279	200	151	98	203	..
53	95	89	126	142	125	116	128	125	89	98	73	42	23	94	..
99	158	183	211	256	256	220	259	339	289	241	191	102	73	100	..
143	189	179	126	49	6	..	1	..	..	..	..	..	..	19	..
1	1	3	2	3	5	6	8	7	1	8	12	6	4	5	..
5	6	2	3	3	5	1	1	1	3	1	..	..	..	..	..
..	..	1	1	..	..	..	..	..	..	..	..	..	..	2	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	63	..
..	..	..	..	..	..	1	5	10	29	53	92	82	119	8	..
92	80	65	80	71	61	48	45	58	44	43	28	31	10	26	1
25	33	32	14	14	23	11	6	6	6	5	3	1	..	3	..
7	4	2	6	8	3	..	3	..	..	1	..	..	..	2	..
60	43	31	60	49	35	37	36	52	38	37	25	30	10	21	1
..	..	..	..	1	..	..	..	..	..	..	..	..	..	11	..
1,211	1,467	1,493	1,705	1,612	1,600	1,598	1,652	2,052	1,851	1,641	1,293	801	570	1,051	1

Report of the Bureau of Records.

Recapitulation—Total Deaths

CITY OF

	All Ages.	Under 1 Year.	1	2	3	4	Total Under 5.	5	10	15
Total Males.....	40,333	8,825	2,479	1,093	572	373	13,342	897	503	763
Total Females.....	33,772	7,151	2,261	843	559	363	11,177	854	464	731
Total both Sexes	74,105	15,976	4,740	1,936	1,131	736	24,519	1,751	967	1,494

BOROUGH OF

Total Males	20,061	4,894	1,328	577	282	180	7,261	432	254	349
Total Females.....	17,002	4,020	1,212	424	285	184	6,125	398	222	328
Total both Sexes.....	37,963	8,914	2,540	1,001	567	364	13,386	830	476	677

BOROUGH OF

Total Males.....	3,597	561	135	74	37	27	834	76	52	100
Total Females.....	2,827	430	140	66	40	38	720	65	50	95
Total both Sexes.....	6,424	991	281	140	77	65	1,554	141	102	195

BOROUGH OF

Total Males.....	12,899	2,743	869	379	213	134	4,338	328	158	254
Total Females.....	11,466	2,180	755	294	203	115	3,547	310	157	251
Total both Sexes.....	24,365	4,923	1,624	673	416	249	7,885	638	315	505

BOROUGH OF

Total Males.....	1,992	461	104	48	34	25	672	45	28	47
Total Females	1,846	390	114	44	21	17	586	66	29	45
Total both Sexes.....	3,838	851	218	92	55	42	1,258	111	57	92

BOROUGH OF

Total Males.....	884	166	43	15	6	7	237	16	11	13
Total Females.....	631	131	34	15	10	9	199	15	6	12
Total both Sexes.....	1,515	297	77	30	16	16	436	31	17	25

Report of the Bureau of Records.

from All Causes by Age—Groups.

NEW YORK.

20	25	30	35	40	45	50	55	60	65	70	75	80	85 and over.	Colored.	Chinese
1,320	1,721	2,070	2,490	2,544	2,525	2,459	2,044	2,204	1,945	1,476	1,069	558	403	1,125	76
1,211	1,467	1,493	1,705	1,612	1,600	1,598	1,652	2,052	1,851	1,641	1,293	801	570	1,051	1
2,531	3,188	3,563	4,195	4,156	4,125	4,057	3,696	4,256	3,796	3,117	2,362	1,359	973	2,176	77

MANHATTAN.

628	895	1,039	1,320	1,374	1,377	1,275	1,077	1,139	945	699	457	250	170	699	69
598	734	755	836	840	830	790	815	994	872	740	553	334	238	627	1
1,226	1,629	1,794	2,156	2,214	2,207	2,065	1,912	2,133	1,817	1,439	1,010	584	408	1,326	70

THE BRONX.

172	233	258	296	282	237	233	181	187	158	131	98	44	25	100	..
131	166	163	184	158	137	137	126	182	148	127	112	71	55	91	..
303	399	421	480	440	374	370	307	369	306	258	210	115	80	191	..

BROOKLYN.

422	482	616	724	741	737	770	647	707	669	506	412	200	158	272	7
411	474	489	568	506	520	543	589	729	668	631	510	342	221	262	..
833	956	1,135	1,292	1,247	1,257	1,313	1,236	1,436	1,337	1,137	922	542	379	534	7

QUEENS.

69	84	77	100	100	122	124	88	113	120	83	61	33	26	36	..
62	68	69	79	87	85	94	92	105	118	109	80	35	37	54	..
131	152	146	179	187	207	218	180	218	238	192	141	68	63	90	..

RICHMOND.

29	27	50	50	47	52	57	31	58	53	57	41	31	24	18	..
9	25	17	38	21	28	34	30	42	45	34	38	19	19	17	..
38	52	67	88	68	80	91	61	100	98	91	79	50	43	35	..

Report of the Bureau of Records.

Actual Number of Deaths from Zymotic and

BOROUGH OF

Wards.	Area in Acres.	Population by Census of 1900.	Number of Persons to the Acre.	Typhoid Fever.	Malarial Fevers.	Small-pox.
First	154.0	9,516	61.8	3	..	..
Second	81.0	1,488	18.4	..	..	..
Third	95.0	1,797	18.9	1	..	..
Fourth	83.0	19,554	235.7	4	..	..
Fifth	168.0	8,298	49.4	1	..	..
Sixth	86.0	20,004	232.7	3	..	..
Seventh	108.0	89,237	450.7	8	..	..
Eighth	183.0	29,059	158.8	10	..	..
Ninth	322.0	59,650	185.2	10	1	..
Tenth	110.0	71,879	653.4	6	..	..
Eleventh	196.0	99,144	505.8	14	..	..
Twelfth	5,504.0	476,602	86.6	74	3	..
Thirteenth	107.0	64,117	599.2	4	..	..
Fourteenth	96.0	34,035	354.5	4	..	..
Fifteenth	198.0	24,066	121.5	..	..	..
Sixteenth	349.0	52,808	151.3	6	..	..
Seventeenth	331.0	130,796	395.1	7	..	..
Eighteenth	450.0	61,325	136.3	9	..	2
Nineteenth	1,481.0	257,448	173.8	43	3	..
Twentieth	444.0	89,708	202.2	7	..	..
Twenty-first	411.0	60,211	146.5	7	..	..
Twenty-second	1,520.0	189,261	123.7	41	..	..
Total	12,576.0	1,850,093	147.2	262	7	2

BOROUGH OF

Twenty-third	4,267.0	132,413	31.0	39	1	..
Twenty-fourth	22,255.8	43,009	1.9	24	2	..
Total	26,522.8	175,422	6.6	63	3	..

Report of the Bureau of Records.

Certain other Preventable Diseases, by Wards.

MANHATTAN.

Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Pulmonary Tuberculosis.	Cerebro-spinal Meningitis.	Pneumonia.	Broncho-Pneumonia.	Diarrhoeal Diseases.	All Causes.	Deaths in Institutions.	Deaths of Children under 5 Years.
3	4	2	6.	45	3	30	23	29	350	54	93
1	..	..	..	7	..	2	..	1	37	10	2
1	..	..	1	11	..	3	5	5	81	..	16
14	4	5	15	81	7	62	101	67	621	29	276
..	..	..	5	28	..	19	13	9	223	244	44
26	1	2	14	86	5	43	52	36	458	9	177
5	20	3	54	103	10	101	134	118	1,252	707	565
10	3	7	22	63	6	43	77	56	597	42	261
8	4	7	43	205	23	97	102	104	1,500	587	410
14	12	4	35	90	8	54	83	68	832	2	349
14	17	9	65	135	9	97	146	137	1,411	48	639
94	62	198	1,000	49	750	810	661	10,616	3,327	3,233	3,233
14	21	6	33	54	..	48	60	62	659	..	326
14	6	2	23	63	3	69	176	97	754	..	456
3	1	1	8	55	2	25	30	24	385	16	111
8	6	10	21	123	4	92	57	60	968	17	220
28	33	13	67	222	14	159	294	180	2,331	181	1,010
13	36	5	59	190	7	97	91	104	1,627	2,038	590
82	46	35	121	704	15	310	431	635	6,335	5,078	2,678
6	13	13	36	253	8	101	119	110	1,597	141	443
13	11	9	38	227	6	114	83	65	1,562	2,816	388
23	24	25	101	442	20	259	246	229	3,767	659	1,094
388	358	220	963	4,205	184	2,575	3,133	2,857	37,963	16,071	13,386

THE BRONX.

41	28	24	77	1,153	17	240	190	230	4,126	1,898	1,009
17	22	10	25	470	17	142	94	118	2,298	748	546
58	50	34	102	1,623	34	382	284	348	6,424	2,646	1,555

Report of the Bureau of Records.

Actual Number of Deaths from Zymotic and

BOROUGH OF

Wards.	Area in Acres.	Population by Census of 1900.	Per-sons to the Acre.	Typhoid Fever.	Malarial Fevers.	Small-pox.
First.....	233.0	20,307	87.2	2	1	..
Second.....	97.7	8,505	87.7	2	..	..
Third.....	161.4	17,949	111.2	2	..	..
Fourth.....	111.3	12,568	112.9	2	1	..
Fifth.....	119.4	18,862	158.0	3	..	..
Sixth.....	302.9	42,485	140.2	11	2	..
Seventh.....	458.5	40,471	88.3	9	1	..
Eighth.....	1,843.2	52,414	28.4	18	4	..
Ninth.....	623.6	42,876	68.8	13	..	..
Tenth.....	318.7	39,100	122.7	5	1	..
Eleventh.....	252.6	22,608	89.5	1	1	..
Twelfth.....	663.1	30,354	45.8	..	..	..
Thirteenth.....	230.3	24,029	104.3	4	..	..
Fourteenth.....	282.6	31,483	111.4	4	..	..
Fifteenth.....	244.8	30,269	123.6	..	..	..
Sixteenth.....	244.8	56,550	231.0	6	..	..
Seventeenth.....	823.3	57,399	69.6	4	2	..
Eighteenth.....	873.0	25,133	28.8	2	1	..
Nineteenth.....	413.8	37,645	91.0	5	..	..
Twentieth.....	461.4	25,440	55.1	6	..	..
Twenty-first.....	483.2	58,957	122.0	10	..	..
Twenty-second.....	1,361.6	66,575	48.8	11	3	..
Twenty-third.....	736.0	61,813	84.0	12	..	..
Twenty-fourth.....	1,198.5	31,767	26.5	7	..	..
Twenty-fifth.....	567.8	48,328	85.1	4	2	..
Twenty-sixth.....	3,590.2	66,086	18.4	11	..	..
Twenty-seventh.....	400.7	43,961	109.7	2	2	..
Twenty-eighth.....	884.4	77,912	88.12	9	..	..
Twenty-ninth.....	3,800.0	27,188	7.6	11	..	..
Thirtieth.....	3,404.1	24,700	4.6	9	3	..
Thirty-first.....	6,312.3	14,699	2.3	2	..	..
Thirty-second.....	5,479.5	8,243	1.5	2	..	..
Total.....	38,977.8	1,166,582	29.9	191	24	..

BOROUGH OF

Wards.	Area in Acres.	Population by Census of 1900.	Number of Per-sons to the Acre.	Typhoid Fever.	Malarial Fever.	Small-pox.
First.....	4,650	48,272	10.4	7	..	..
Second.....	14,700	40,903	2.8	4	2	..
Third.....	22,000	25,870	1.2	5	..	..
Fourth.....	36,600	30,761	.8	20	3	..
Fifth.....	3,770	7,193	1.9	1	..	..
Total.....	81,720	152,999	1.9	37	5	..

Report of the Bureau of Records.

Certain Other Preventable Diseases by Wards—Continued.

BROOKLYN.

Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Pulmonary Tuberculosis.	Cerebro-spinal Meningitis.	Pneumonia.	Broncho-Pneumonia.	Diarrhoeal Diseases.	All Causes.	Deaths in Institutions.	Deaths of Children under 5 Years.
1	4	..	1	48	1	21	17	22	415	122	83
2	6	1	3	28	..	15	16	16	194	1	59
7	1	..	..	39	..	22	18	9	300	25	72
1	1	..	3	44	..	24	14	25	268	1	57
1	13	3	12	46	1	49	36	59	453	..	168
20	6	2	23	111	2	84	79	54	925	774	311
7	6	1	12	67	4	58	44	47	703	8	171
9	20	10	33	119	7	107	88	115	1,273	196	426
6	3	2	15	104	2	69	44	55	787	297	190
10	4	5	17	94	3	86	55	94	865	1	310
3	1	4	9	59	1	35	27	33	479	239	148
11	1	3	6	70	3	64	56	59	597	..	204
4	7	1	14	49	..	41	30	39	466	260	156
12	9	1	21	78	3	68	68	117	687	1	359
10	2	5	11	62	2	55	75	68	610	..	253
5	5	3	20	72	7	65	84	73	789	..	321
10	10	5	14	96	6	68	75	134	995	9	350
6	10	5	6	49	5	58	52	92	621	297	263
3	..	1	9	50	3	58	31	27	562	37	131
2	7	..	3	42	..	32	22	38	511	273	100
5	12	6	18	101	5	73	56	89	1,019	3	300
12	9	5	21	113	5	93	73	89	1,241	317	328
2	6	1	14	69	1	66	25	37	932	195	140
6	17	3	17	70	3	74	60	68	900	525	270
2	13	6	14	82	3	58	25	48	813	77	183
31	31	14	73	143	12	176	173	187	1,950	98	828
13	17	3	17	94	1	42	84	80	824	27	286
5	14	9	20	156	2	77	48	84	1,293	274	275
295	55	6	93	80	9	56	36	59	1,353	2,283	655
5	22	7	21	63	2	77	57	62	896	38	286
3	6	4	7	33	3	36	20	43	440	69	147
..	..	1	7	16	..	11	5	27	194	5	55
509	326	118	556	2,347	96	1,918	1,593	2,047	24,365	6,452	7,885

QUEENS.

Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Pulmonary Tuberculosis.	Cerebro-spinal Meningitis.	Pneumonia.	Broncho-Pneumonia.	Diarrhoeal Diseases.	All Causes.	Deaths in Institutions.	Deaths of Children under 5 Years.
19	18	4	15	78	4	72	115	88	992	232	334
8	12	6	27	127	2	96	91	135	1,211	12	431
1	4	4	8	42	..	32	17	31	482	119	128
2	6	8	19	56	2	69	38	108	907	158	293
..	..	1	4	6	..	10	14	34	246	78	69
30	42	23	73	309	8	279	275	396	3,838	599	1,258

Report of the Bureau of Records.

Actual Number of Deaths from Zymotic and

BOROUGH OF

Wards.	Area in Acres.	Population by Census of 1900.	Number of Persons to the Acre.	Typhoid Fever.	Malarial Fevers.	Small-pox.
First	3,340	21,441	6.4	3	..	..
Second	4,130	13,200	3.2	2	..	..
Third	10,050	13,701	1.4	4	..	..
Fourth	8,180	9,516	1.2	2	..	..
Fifth	10,900	9,163	.8	..	1	..
Total	36,600	67,021	1.8	11	1	..

Deaths According to Nativity of

Country.	Nativity of Deceased.		
	Borough of—		
	Manhattan.	The Bronx.	Brooklyn.
United States	23,381	3,854	15,657
Ireland	4,428	690	2,622
Germany	2,860	834	2,263
Italy	1,587	236	821
Russia	1,710	206	818
England	620	120	589
Austro-Hungary	1,294	146	319
Scotland	201	34	106
British America	198	32	157
Switzerland	108	33	47
France	221	30	58
Bohemia	166	19	5
Roumania	163	23	43
Poland	44	15	38
Syria	13	1	8
Sweden	166	40	217
Norway	56	15	165
Denmark	43	15	53
Finland	41	13	22
Holland	40	5	20
Cuba	34	3	6
Other West Indies	98	8	54
Belgium	15	4	4
Spain	27	1	10
Greece	43	4	11
China	71	....	7
Australia	2	....	2
Other Foreign	88	22	51
Unknown	245	21	87
Mixed nationalities .....	....	....	....
Total	37,963	6,424	24,365

Report of the Bureau of Records.

Certain Other Preventable Diseases by Wards—Continued.

RICHMOND.

Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Pulmonary Tuberculosis.	Cerebro-spinal Meningitis.	Pneumonia.	Broncho-Pneumonia.	Diarrhœal Diseases.	All Causes.	Deaths in Institutions.	Deaths of Children under 5 Years.
3	5	2	6	73	1	39	22	21	536	433	114
..	1	1	4	28	..	12	10	18	265	33	64
4	2	2	3	24	1	18	12	37	316	16	111
4	1	..	3	21	2	14	26	35	252	51	111
1	1	1	2	13	..	17	5	8	146	14	36
12	10	6	20	159	4	100	75	119	1,515	547	436

Deceased and Parents of Deceased.

Nativity of Deceased.			Nativity of Parents of Deceased.					
Borough of—		City of New York.	Borough of—					City of New York.
Queens.	Richmond.		Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
2,490	981	46,363	6,169	1,249	5,681	1,032	442	14,573
293	177	8,210	7,502	1,355	4,595	501	296	14,249
569	119	6,645	4,030	1,234	3,436	837	173	9,710
116	54	2,824	5,226	666	2,578	338	131	8,939
32	10	2,776	3,597	346	2,100	97	36	6,176
78	37	1,444	643	129	665	89	51	1,577
50	24	1,833	2,543	215	700	102	57	3,617
27	14	472	260	39	242	36	20	597
19	20	426	164	26	97	14	12	313
17	5	210	107	34	47	17	5	210
19	9	337	239	33	66	20	9	367
28	....	218	312	26	7	34	1	380
....	....	229	286	31	82	1	....	400
19	6	122	94	22	90	75	12	293
....	....	22	25	1	21	....	....	47
26	12	451	209	70	318	30	19	646
8	16	260	78	20	256	13	26	393
4	7	122	55	14	64	2	7	142
3	5	84	58	16	55	7	7	143
2	1	77	56	6	31	1	1	95
1	2	46	30	1	5	....	1	37
3	4	167	212	10	76	5	4	307
....	....	23	15	7	4	....	....	26
2	2	48	36	1	18	1	3	59
1	1	60	67	6	11	1	1	86
....	....	78	68	....	7	....	....	75
2	....	6	....	....	....	2	....	2
7	1	169	91	26	49	6	1	173
22	8	383	3,021	116	441	80	76	3,734
....	....	....	2,770	725	2,623	497	124	6,739
3,838	1,515	74,105	37,963	6,424	24,365	3,838	1,515	74,105

Report of the Bureau of Records.

*Deaths by Suicide in

	Austria-Hungary.	
	M.	F.
Cuts and Stabs	3	2
Drowning .....	..	..
Gunshot	15	..
Hanging	5	2
Leaps .....	..	4
Railroads .....	..	..
Arsenic .....	..	..
Belladonna .....	..	..
Bichloride of Mercury .....	..	..
Carbolic Acid	3	2
Chloral .....	..	..
Chloride of Potassium .....	..	..
Chloroform .....	..	..
Cyanide of Ammonia .....	..	..
Cyanide of Potassium .....	..	..
Hydrochloric Acid .....	..	..
Hydrocyanic Acid	1	..
Iodine .....	..	..
Illuminating Gas	8	10
Lysol .....	..	..
Muriatic Acid .....	..	..
Morphine .....	..	..
Nitric Acid .....	..	..
Opium .....	..	..
Oxalic Acid .....	..	..
Paris Green	2	..
Rough on Rats .....	..	..
Strychnine .....	..	..
Sulphuric Acid .....	..	..
Unknown Poison .....	..	1
Total by Sexes	37	21
Total both Sexes	58	

* The 890 suicides occurred in the boroughs as follows : Manhattan, 488 ;

Report of the Bureau of Records.

The City of New York.

Bohemia.		England.		France.		Germany.		Ireland.		Italy.		Russia.		Other Foreign Countries.		United States.		Unknown.		Total by Sexes.		Total both Sexes.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
..	..	2	..	..	..	10	1	1	..	2	..	2	..	4	..	19	3	1	..	44	6	50
..	..	1	1	..	..	1	1	2	..	..	1	..	..	..	..	1	..	..	..	6	4	10
2	..	9	..	2	..	46	4	5	..	10	2	17	..	18	1	89	7	17	..	230	14	244
1	..	2	..	..	..	20	..	1	2	1	..	5	..	3	2	16	4	7	..	61	12	73
..	..	2	..	..	..	..	4	5	2	1	..	2	6	1	1	15	3	4	1	30	21	51
..	1	..	..	1	..	..	..	..	..	..	..	..	..	3	2	..	..	4	3	7
..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1	2
..	1	1	..	..	..	..	1	3	..	..	3	5	8
..	2	1	..	12	5	2	1	2	1	6	2	2	..	13	9	4	..	45	22	67
..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1
..	1	..	..	..	2	..	2
..	1	..	..	..	1	..	1
..	1	..	..	..	1	..	1
..	1	..	..	..	1	1
..	2	..	1	..	..	..	1	..	2	..	5	1	1	..	10	1	11
..	7	..	..	..	..	..	1	..	..	..	..	..	..	..	2	..	2
..	9	..	9
..	1	..	1
2	2	6	4	5	1	64	18	5	2	6	1	28	8	22	5	65	36	19	2	230	89	319
..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	2
..	1	1	..	..	..	..	..	..	1	..	..	..	1	..	1	..	1
..	1	..	..	2	..	2
..	3	..	1	..	4	..	4
..	1	..	1	..	..	1	..	1
..	3	..	1	..	..	..	..	..	1	..	1	..	..	..	5	1	6
..	1	..	..	..	..	..	..	..	3	..	3
..	1	..	..	..	..	..	..	..	1	..	1
..	1	..	..	..	..	..	..	..	..	..	1	1	..	..	3	2	5
5	2	25	8	8	1	170	36	23	8	23	6	63	18	54	10	236	75	56	5	700	190	890
7		33		9		206		31		29		81		64		311		61		890		..

The Bronx, 84; Brooklyn, 260; Queens, 44; Richmond, 14.

Deaths by Suicide in the

	Austro-Hungary.		Bohemia.		England.		France.		Germany.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Cuts and stabs.....	2	1	..	..	1	..	..	..	3	1
Drowning.....	..	..	..	..	..	..	..	..	1	..
Gunshot.....	9	..	2	..	5	..	2	..	26	1
Hanging.....	4	1	..	..	1	..	..	..	9	1
Leaps.....	..	4	..	..	1	..	..	..	1	4
Railroads.....	..	..	..	..	1	1	..	..	..	..
Arsenic.....	..	..	..	..	1	..	..	..	..	..
Bichloride of mercury.....	..	..	..	..	1	..	..	..	6	4
Carbolic acid.....	2	2	..	..	..	2	1	..	..	..
Chloral.....	..	..	..	..	1	..	..	..	..	..
Cyanide of Ammonia.....	..	..	..	..	..	..	..	..	..	..
Cyanide of potassium.....	..	..	..	..	..	..	..	..	2	..
Hydrochloric acid.....	..	..	..	..	..	..	..	..	1	..
Hydrocyanic acid.....	..	..	..	..	..	..	..	..	1	..
Illuminating gas.....	6	7	1	2	2	3	4	1	32	11
Lysol.....	..	..	..	..	..	..	..	..	..	..
Morphine.....	..	..	..	..	..	..	..	..	1	1
Nitric acid.....	..	..	..	..	..	..	..	..	..	..
Opium.....	..	..	..	..	..	..	..	..	..	..
Oxalic acid.....	..	..	..	..	..	..	..	..	..	..
Paris green.....	..	..	..	..	..	..	..	..	1	..
Rough on rats.....	..	..	..	..	..	..	..	..	..	..
Strychnine.....	..	..	..	..	..	..	..	..	..	..
Unknown poison.....	..	1	..	..	..	..	..	..	..	..
Total by sexes.....	23	16	3	2	14	6	7	1	83	23
Total both sexes.....	39		5		20		8		106	

Report of the Bureau of Records.

Borough of Manhattan.

Ireland		Italy.		Russia.		Other Foreign Countries.		United States.		Unknown.		Total. by Sexes.		Total both Sexes.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
..	..	1	..	1	..	1	..	3	1	1	..	18	3	21
2	..	..	1	..	..	..	..	1	..	..	..	4	1	5
3	..	5	2	10	..	10	..	38	3	9	..	110	6	125
1	..	1	..	1	..	..	1	7	..	2	..	26	3	29
3	2	1	..	2	4	1	..	12	2	3	1	24	17	41
..	..	..	..	..	..	..	..	3	2	..	..	4	3	7
..	1	..	..	..	..	..	..	..	..	..	..	1	1	2
..	..	..	..	..	1	..	..	1	..	..	..	2	1	3
2	1	1	..	3	1	1	..	7	5	3	..	26	15	41
..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
1	..	..	..	1	..	2	..	4	1	1	..	9	1	10
..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
4	2	6	1	17	7	11	3	31	15	15	2	120	54	183
..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
..	..	..	..	..	..	..	..	..	..	1	..	1	2	3
..	..	..	..	..	..	..	..	2	..	1	..	1	..	1
..	..	..	..	..	..	..	1	..	1	..	..	3	..	3
..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
1	..	..	..	..	..	1	..	..	..	..	..	1	..	1
..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
..	..	..	..	..	1	..	..	..	..	..	..	..	1	1
..	..	..	..	..	..	..	..	1	..	..	..	1	1	2
17	6	15	4	35	14	27	5	115	32	36	4	375	113	488
23		19		49		32		147		40		488		..

Report of the Bureau of Records.

Deaths by Accident and Negligence.

	Borough of—					City of New York.
	Man- hattan.	The Bronx.	Brook- lyn.	Queens	Rich- mond.	
Fractures and Contusions—						
Crushed by boats.....	5	..	2	1	1	9
“ by diving.....	1	..	..	..	..	1
“ by derricks.....	4	4	1	..	..	9
“ by elevators.....	29	1	3	..	..	33
“ by explosions.....	2	4	2	1	..	9
“ by machinery.....	11	..	11	3	..	25
“ by stones.....	5	2	4	2	..	13
“ by other falling bodies.....	32	9	12	3	..	56
Other causes.....	20	9	19	10	7	65
Not specified by Coroners.....	56	2	5	4	1	68
Falls—						
Down air-shafts.....	1	2	..	..	..	3
“ areaways.....	5	2	..	..	..	7
“ elevator shafts.....	30	1	2	..	..	33
“ stairs.....	75	9	58	4	2	148
From buildings.....	59	2	16	..	..	77
“ fire-escapes.....	34	1	6	..	..	41
“ scaffolds.....	20	3	14	..	..	37
“ windows.....	99	10	31	2	3	145
On ships.....	10	..	5	..	2	17
On streets and sidewalks.....	42	7	23	1	1	74
Others.....	110	19	60	17	1	207
Not specified by Coroners.....	36	..	11	8	..	55
Street Vehicles—						
Run over by wagons, trucks, etc.....	102	16	34	5	4	161
Falls from wagons, trucks, etc.....	16	3	21	2	1	43
Run over by automobiles.....	54	6	20	4	..	84
Thrown from automobiles.....	5	..	..	1	..	6
Not specified by Coroners.....	5	..	..	..	..	5
Railroads—						
Electric surface roads.....	93	8	65	12	3	181
Steam roads.....	15	26	3	30	8	82
Elevated roads.....	3	..	1	..	..	4
Horse cars.....	1	..	..	..	..	1
Subways.....	14	2	1	..	..	17
Not specified by Coroners.....	4	..	..	..	..	4
Wounds—						
Gunshot.....	3	1	4	4	..	12
Incised.....	4	..	..	1	..	5
Lacerated.....	1	2	5	..	..	8
Others.....	15	4	6	1	..	26
Not specified by Coroners.....	..	..	4	1	..	5
Burns—						
Stoves, coal, gas or oil.....	31	6	27	2	1	67
Lamps.....	2	1	7	..	1	11
Playing with matches.....	10	1	27	1	1	40
Other causes.....	35	13	34	8	4	94
Not specified by Coroners.....	51	..	12	6	..	69
Scalds—						
Hot fluids.....	49	7	39	3	1	94
Steam.....	8	..	5	1	..	19
Conflagrations.....	40	3	32	7	..	82
Sunstroke.....	71	8	39	9	3	130
Freezing.....	1	1	..	..	1	3
Electric current.....	2	2	3	3	1	11
Drowning.....	212	37	140	41	31	467
Starvation.....	3	..	1	..	1	5
Illuminating gas.....	102	8	111	19	4	244
Other gases.....	11	..	1	..	1	13
Poisons—						
Acetanilid.....	..	..	1	..	..	1
Alcohol.....	4	..	6	..	..	10
Ammonia.....	..	1	..	..	..	1
Arsenic.....	..	..	..	..	2	2
Bay rum and hair oil.....	..	..	1	..	..	1
Belladonna.....	..	..	..	1	..	1

Report of the Bureau of Records.

Deaths by Accident and Negligence—Continued.

	Borough of—					City of New York.
	Manhattan	The Bronx.	Brooklyn.	Queens	Richmond.	
Poisons—						
Bichloride of mercury.....	5	..	1	..	..	6
Bichromate of potash.....	..	..	1	..	..	1
Camphorated oil.....	1	..	..	..	..	1
Carbolic acid.....	5	1	2	..	..	8
Caustic potash.....	..	..	..	1	..	1
Chloral.....	1	..	..	..	..	1
Chloral hydrate.....	..	..	1	..	..	1
Chloroform.....	..	..	3	..	..	3
Cholera drops.....	..	..	1	..	..	1
Cocaine.....	1	..	..	..	..	1
Irritant poison.....	..	..	..	..	2	2
Laudanum and menthol.....	1	..	..	..	..	1
Lysol.....	1	2	..	1	..	4
Morphine.....	..	..	1	..	..	1
Morphine and chloral.....	1	..	..	..	..	1
Muriatic acid.....	..	..	1	..	..	1
Nitric acid.....	..	..	1	..	..	1
Opium.....	7	..	..	..	..	7
Ptomaines.....	8	1	14	1	1	25
Soda bromide.....	..	..	1	..	..	1
Stromonium.....	..	..	1	..	..	1
Uraemic (during foetal life).....	1	..	..	..	..	1
Wood alcohol.....	3	1	..	..	..	4
Not specified by Coroners.....	4	..	..	1	..	5
Suffocation—						
Caving in of embankment.....	..	..	1	2	..	3
Food in larynx.....	3	..	..	..	..	3
Foreign body in larynx.....	6	..	6	..	..	12
Overlying.....	12	1	8	1	..	22
Others.....	8	1	5	1	..	15
Not specified by Coroners.....	4	..	..	..	..	4
Criminal abortion.....	25	2	7	4	..	38
Circumcision.....	5	..	3	..	..	8
Surgical operations.....	3	3	..	..	..	6
Hydrophobia.....	3	..	3	..	..	6
Tetanus.....	12	..	11	..	1	24

Recapitulation.

	Borough of—					City of New York
	Manhattan.	The Bronx.	Brooklyn.	Queens	Richmond.	
Fractures and contusions.....	165	31	59	24	9	288
Falls.....	521	56	226	32	9	844
Street vehicles.....	182	25	75	12	5	299
Railroads.....	130	36	70	42	11	289
Wounds.....	23	7	19	7	..	56
Burns and scalds.....	186	28	151	21	8	394
Conflagrations.....	40	3	32	7	..	82
Sunstroke.....	71	8	39	9	3	130
Freezing.....	1	1	..	..	1	3
Electric current.....	2	2	3	..	1	11
Drowning.....	212	37	140	41	31	467
Starvation.....	3	..	1	..	1	5
Illuminating gas.....	102	8	111	19	4	244
Other gases.....	11	..	1	..	1	13
Poison.....	43	6	36	5	5	95
Suffocation.....	33	2	20	4	..	59
Criminal abortion.....	25	2	7	4	..	38
Circumcision.....	5	..	3	..	..	8
Surgical operation.....	3	3	..	..	..	6
Total deaths from accident and negligence.....	1,778	255	999	230	89	3,331

Report of the Bureau of Records.

Deaths in Institutions, Year of 1909.

BOROUGH OF MANHATTAN.

Babies' Hospital.....	382
Bellevue Hospital.....	2,721
Beth Israel Hospital.....	274
City Hospital.....	310
Columbus Hospital.....	51
Daughters of Jacob.....	29
Flower Hospital.....	342
Foundlings' Hospital.....	1,375
French Hospital.....	75
General Memorial Hospital.....	27
German Hospital.....	278
Gouverneur Hospital.....	426
Hahneman Hospital.....	45
Harlem Hospital.....	746
Har Moriah Hospital.....	69
Home for Aged, Little Sisters of the Poor	43
Home for Aged and Infirm Hebrews.....	36
House of Calvary.....	45
House of Relief.....	244
Immigrant Hospital, Ellis Island.....	45
Italian Hospital.....	42
J. Hood Wright Memorial Hospital.....	140
Lying-in Hospital.....	213
Manhattan Eye and Ear Hospital.....	37
Manhattan State Hospital.....	385
Metropolitan Hospital.....	1,078
Miss Alston's Sanitarium.....	42
Montifore Home.....	126
Mount Sinai Hospital.....	656
Misericordida Hospital.....	127
New York City Home and Hospital.....	479
New York Hospital.....	484
New York Eye and Ear Hospital.....	42
New York City School and Hospital.....	158
New York Infant Asylum.....	224
New York Infirmary for Women and Chil-	
dren.....	41
Nursery and Child's Hospital.....	36
Polyclinic Hospital.....	57
Post Graduate Hospital.....	415
Presbyterian Hospital.....	439
Reception Hospital.....	133
Red Cross Hospital.....	32
Roosevelt Hospital.....	248
St. Francis' Hospital.....	69
St. Gregory's Hospital.....	45
St. Luke's Hospital.....	378
St. Mark's Hospital.....	79
St. Mary's Hospital.....	63
St. Rose's Home for Cancer.....	29
St. Vincent's Hospital.....	540
Skin and Cancer Hospital.....	30
Sloane Maternity Hospital.....	78
Sydenham Hospital.....	174
Washington Heights Hospital.....	69
Willard Parker Hospital.....	656
Workhouse Hospital.....	59
Other Institutions.....	614
Total.....	16,071

BOROUGH OF BRONX.

Fordham Hospital.....	289
Hebrew Infant Asylum.....	20
Home for Aged.....	29
Home for Incurables.....	82
Lebanon Hospital.....	340
Lincoln Hospital.....	322
Odd Fellows' Home.....	8
Riverside Hospital.....	356
St. Francis' Hospital.....	241
St. Joseph's Hospital.....	609
Seton Hospital.....	287
Work House Hospital.....	24
Other Institutions.....	39
Total.....	2,646

BOROUGH OF BROOKLYN.

Angel Guardian Home.....	21
Bethany Deaconess Hospital.....	20
Bradford St. Hospital.....	16
Brooklyn Eye and Ear Hospital.....	23
Brooklyn Hospital.....	228
Bushwick Hospital.....	77
Cumberland St. Hospital.....	265
Eastern District Hospital.....	104
German Evangelical Home.....	41
German Hospital.....	213
Home for Aged, Little Sisters of the Poor	93
Home for Consumptives.....	123
Infants' Hospital.....	22
Jewish Hospital.....	228
Kings County Hospital.....	1,033
Kingston Ave. Hospital.....	697
Long Island College Hospital.....	284
Long Island State Hospital.....	129
Lutheran Hospital.....	70
Methodist Episcopal Hospital.....	225
New York City Home for Aged and Infirm	414
Norwegian Hospital.....	157
Prospect Heights Hospital.....	43
Samaritan Hospital.....	39
St. Catherine's Hospital.....	291
St. Christopher's Hospital.....	98
St. John's Hospital.....	123
St. Mary's Hospital.....	301
St. Peter's Hospital.....	478
Swedish Hospital.....	74
Williamsburg Hospital.....	155
Other Institutions.....	367
Total.....	6,452

BOROUGH OF QUEENS.

Combes Sanitarium.....	12
Flushing Hospital.....	107
Hebrew Sanitarium.....	12
Jamaica Hospital.....	51
River Crest Sanitarium.....	21
St. John's Hospital.....	208
St. Joseph's Hospital.....	62
St. Mary's Hospital.....	100
Other Institutions.....	26
Total.....	599

BOROUGH OF RICHMOND.

Mount Loretto.....	11
New York City Farm Colony.....	16
Sailors' Snug Harbor.....	75
St. Vincent's Hospital.....	203
Sea Side Hospital.....	51
S. R. Smith Infirmary.....	153
U. S. Marine Hospital.....	30
Other Institutions.....	8
Total.....	547

RECAPITULATION.

Almshouses.....	915
Homes for Aged.....	611
Hospitals.....	21,759
Institutions for Children.....	2,000
Institutions for Insane.....	555
Prisons.....	108
Other Institutions.....	367
Total.....	26,315

Report of the Bureau of Records.

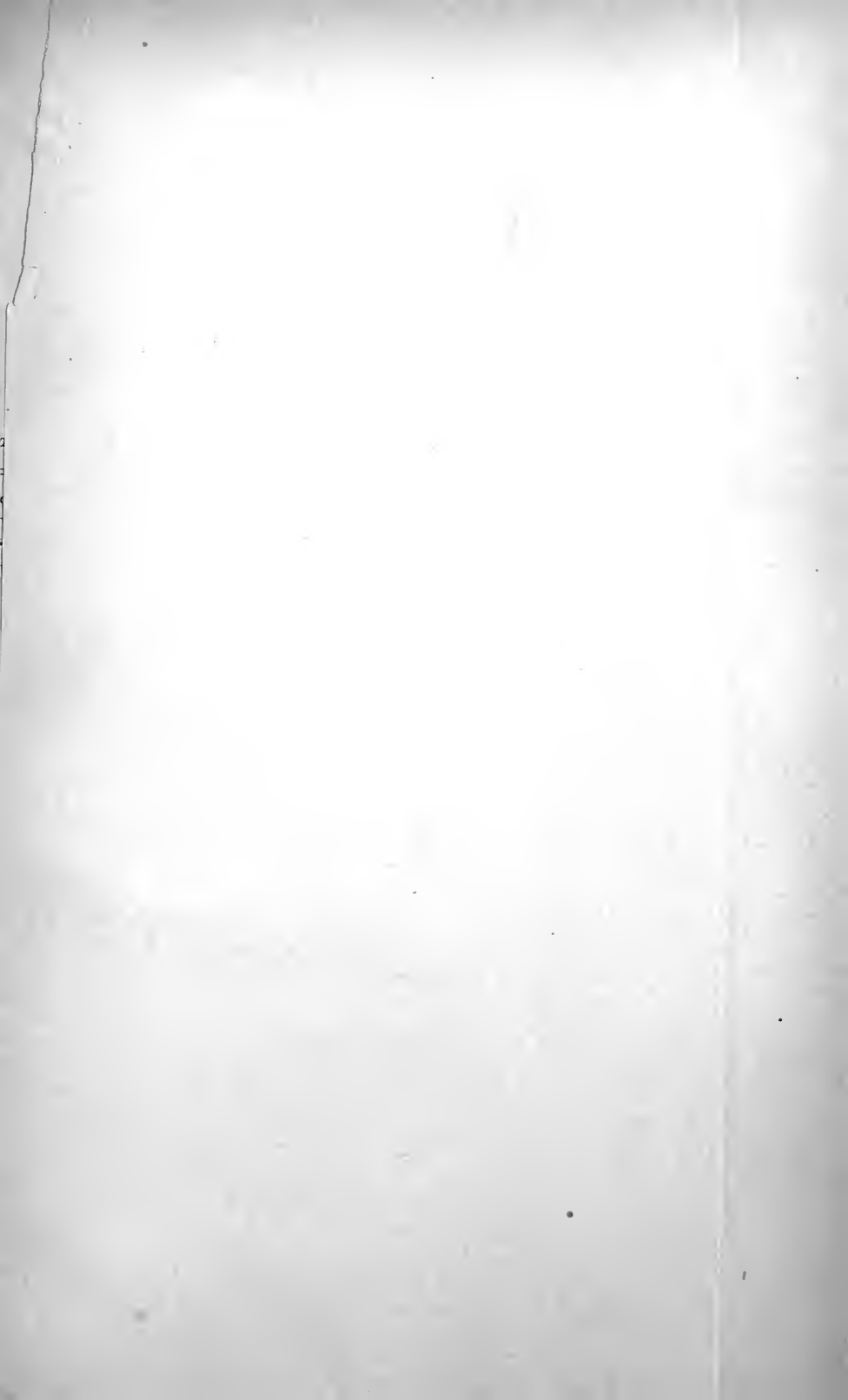
Disposition of the Dead and all Still-born Infants of The City of New York.

Cemeteries.	Number of Interments.	Cemeteries.	Number of Interments.
Borough of Manhattan—		Borough of Queens—	
Marble	3	Mount Zion	3,903
St. Paul's Church Vault.....	1	New Union Fields.....	224
Trinity	28	Prospect	45
Trinity Churchyard .....	..	Paulus	3
Total	32	Springfield	42
Borough of The Bronx—		St. George's	1
City	5,655	St. James'	3
Pelham Bay	29	St. John's	1,686
St. Peter's	38	St. Mary's	8
St. Raymond's	2,406	St. Michael's	2,015
Woodlawn	2,213	St. Monica's	89
Total	10,341	Union Fields	575
Borough of Brooklyn—		United States Crematory.....	744
Canarsie	51	Zion	10
County Farm	1,819	Total	48,326
Cypress Hills	612	Borough of Richmond—	
Evergreen	956	A. M. E. Zion.....	4
Flatlands	5	Baron Hirsch	537
Friends	15	Bethel	36
Gravesend	12	City Farm Colony.....	70
Greenwood	3,838	Fairview	66
Holy Cross	6,019	First Presbyterian	1
Holy Trinity	1,691	Fountain	31
Maimonides	120	Hillside	6
Mount Hope	115	Lake	67
National	102	Merrill	1
New Lots	7	Moravian	329
Salem Fields	211	Mount Loretto	5
United Jewish Congregation.....	51	New Springville	12
Washington	2,723	(Ocean View) Mount Richmond...	1,186
Total	18,347	Sailors' Snug Harbor.....	55
Borough of Queens—		St. Andrew's	4
Acacia	185	St. John's Lutheran	8
Aqueduct	6	St. Joseph's	16
Bayside	340	St. Luke's	11
Calvary	22,096	St. Mary's	6
Cedar Grove	440	St. Mary's, Third Ward.....	70
Cypress Hills	1,595	St. Mary's, Fourth Ward.....	152
Evergreen	3,131	St. Michael's	1
First Presbyterian	1	St. Peter's	308
Flushing	290	Silver Lake	436
Grace Church	12	Silver Mount	59
Lawrence	1	Staten Island	12
Linden Hill	2,107	Sylvan	8
Little Neck	1	United Hebrew	130
Lutheran	5,249	Vaughn	11
Machpelah	188	West Baptist	5
Maple Grove	231	Woodland	178
Montifiore	354	Woodrow's Church	9
Mount Carmel	279	Total	3,830
Mount Hebron	21	Summary—	
Mount Nebo	222	Borough of Manhattan.....	32
Mount Olivet	1,917	Borough of The Bronx.....	10,341
Mount St. Mary's.....	303	Borough of Brooklyn.....	18,347
		Borough of Queens.....	48,326
		Borough of Richmond.....	3,830

Report of the Bureau of Records.

Deaths of Persons 100 Years of Age and Over.

Date of Death.	Name.	Age.			Nativity.	Cause of Death.	Borough of—					City of New York.
		Years.	Months.	Days.			Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
1909.												
Feb. 5..	Simon H. Zlas	101	..	..	Russia.....	Myocarditis	1	..	..	..	..	1
Mar. 25..	Anna Adams	107	..	..	United States.	Senility.....	..	1	..	..	..	1
" 29..	Mary Bowman	106	..	27	"	"	..	..	1	..	..	1
" 30..	Michela Shelotsky.	106	..	..	Russia.....	Chr. nephritis ..	1	..	..	..	..	1
Apr. 3..	Fanny Feldman....	112	..	..	Austria.....	Senility.....	1	..	..	..	..	1
" 13..	Elizabeth Hunt....	108	7	13	United States.	Bronchitis.....	..	..	1	..	..	1
" 19..	Rose Aaronwald ..	108	..	..	Russia.....	Senility.....	1	..	..	..	..	1
May 10..	John Cassidy.....	100	5	..	Ireland.....	Intest. obstruc- tion .....	..	..	..	1	..	1
" 20..	Yetta Schulman...	105	..	..	Russia.....	Arterio sclerosis.	1	..	..	..	..	1
June 17..	Joseph Brous.....	100	..	..	"	Erysipelas.....	1	..	..	..	..	1
Nov. 4..	Gaston Pettijean..	104	..	..	France.....	Nephritis.....	..	..	1	..	..	1
Dec. 4..	Samuel Epstein....	107	..	..	Russia.....	Scalds.....	..	..	1	..	..	1
" 8..	Charles Levin	100	..	..	"	Senile atrophy..	1	..	..	..	..	1
" 31..	Morris Miller	102	..	..	Austria.....	Chr. nephritis ..	1	..	..	..	..	1
Total.....							8	1	4	1	..	14



Deaths and Death Rates Under One Year in Former City of New York (Manhattan and The Bronx), Per 1,000 Population Under 1 Year of Age

	1890.		1891.		1892.		1893.		1894.		1895.		1896.		1897.		1898.		1899.		1900.		1901.		1902.		1903.		1904.		1905.		1906.		1907.		1908.		1909.	
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
Measles.....	220	4.87	176	3.79	292	5.48	111	2.25	184	3.63	192	3.69	187	3.57	165	2.65	124	2.37	94	1.81	116	2.22	61	1.13	129	2.27	121	1.77	145	2.40	97	1.66	186	2.67	153	2.69	162	2.88	142	2.57
Scarlet fever.....	23	.51	60	1.42	68	1.42	47	.99	31	.64	26	.51	20	.38	25	.47	30	.58	16	.24	28	.53	20	.35	25	.45	10	.18	22	.47	10	.18	15	.28	14	.25	12	.21	7	.14
Whooping cough.....	248	5.49	191	4.11	175	3.60	248	5.04	113	2.03	241	4.60	225	4.29	160	3.05	221	4.22	173	3.39	147	2.84	74	1.38	210	3.99	199	3.71	59	1.02	191	3.99	195	3.68	131	2.72	24	1.13	133	2.64
Diphtheria and croup.....	120	2.70	176	4.22	150	3.33	268	4.23	234	4.62	191	3.67	185	3.67	189	3.67	160	3.11	114	2.15	253	3.89	141	2.62	124	2.24	199	3.71	154	2.92	113	2.03	118	2.24	122	2.25	161	2.87		
Erysipelas.....	84	1.86	82	1.82	88	1.84	59	1.20	68	1.34	67	1.28	57	1.08	63	1.22	42	.86	68	1.30	85	1.63	64	1.13	61	1.10	80	.87	62	1.16	100	1.75	83	1.33	59	1.17	74	1.18		
Septicæmia.....	1	.02	4	.08	7	.11	6	.10	15	.30	22	.42	20	.38	16	.30	11	.21	20	.38	25	.47	14	.26	31	.60	25	.44	23	.39	43	.74	19	.36	35	.54	58	.87		
Tubercular diseases (excluding tuberculosis pulmonalis).....	369	8.17	353	7.60	385	8.05	377	7.66	322	6.36	345	6.58	281	5.30	395	5.82	278	5.31	255	4.87	243	4.65	216	4.01	193	3.48	219	3.83	237	4.02	129	2.08	166	2.56	149	2.72	145	2.71		
Syphilis.....	86	1.90	68	1.46	97	2.03	70	1.42	92	1.82	73	1.39	92	1.80	116	2.10	55	1.05	70	1.34	97	1.86	68	1.26	109	1.82	71	1.24	88	1.44	91	1.55	132	2.11	102	2.11	117	1.79		
Meningitis, simple.....	341	7.55	375	8.07	397	8.30	466	9.47	401	7.92	385	7.34	358	6.83	374	6.99	363	6.83	310	5.92	260	4.79	248	4.61	259	4.58	210	3.78	249	4.02	167	2.62	167	2.62	127	1.91				
Cerebro-spinal meningitis.....	31	.69	44	.95	49	1.02	60	1.23	50	1.01	65	1.24	55	1.04	47	.90	73	1.39	68	1.24	52	.96	48	.90	45	.80	29	.52	211	3.64	145	2.64	88	1.59						
Convulsions.....	462	10.23	482	10.44	519	10.82	582	11.82	662	11.88	473	8.96	455	8.74	368	7.02	422	8.04	373	7.12	413	7.93	414	7.99	370	6.97	358	6.26	353	5.99	308	5.93	391	6.25	364	6.21				
Bronchitis.....	945	20.93	897	19.30	885	18.24	833	16.92	866	17.13	721	13.70	586	11.18	610	11.64	650	12.57	550	10.70	509	9.41	690	10.82	458	7.49	533	9.05	478	7.91	609	10.34	237	3.97						
Pneumonia.....	989	21.86	1,243	26.75	1,326	27.37	1,312	27.16	1,116	22.82	1,411	27.69	1,422	27.14	1,334	25.49	1,390	26.08	1,437	27.44	1,047	21.44	1,414	26.26	1,557	28.62	1,537	28.00	1,749	32.85	1,515	28.45	1,854	34.57						
Gastritis.....	49	1.08	54	1.19	40	.80	35	.71	47	.93	110	2.21	69	1.32	60	1.16	61	1.16	50	.95	61	1.17	50	.90	67	1.21	25	.44	15	.25	10	.18	13	.20						
Diarrhea.....	3,077	68.14	3,397	72.46	3,358	70.22	3,242	65.69	3,111	64.42	3,249	61.95	3,070	58.58	2,953	56.39	3,046	58.15	2,539	44.61	2,715	51.66	2,586	48.91	2,398	42.65	2,258	39.51	2,762	46.69	2,872	47.31	2,774	44.52						
Intestinal obstruction.....	44	.98	27	.58	33	.69	25	.51	35	.69	38	.72	29	.55	39	.74	43	.81	49	.92	50	.92	41	.74	58	.96	33	.59	66	.94	84	.84	44	.69						
Malformations and pre-natal.....	595	13.80	619	13.32	642	13.74	690	13.41	627	12.38	711	13.56	701	13.37	628	11.93	664	11.47	524	10.09	684	12.52	598	7.19	355	6.42	582	6.19	307	6.23	478	7.99	459	7.28						
Congenital debility.....	744	16.48	798	17.17	775	16.22	721	14.95	804	15.96	862	15.30	873	16.99	628	11.67	844	16.11	722	14.51	767	14.50	1,092	19.74	1,904	33.62	1,675	34.39	2,267	38.49	2,146	36.64	2,501	39.99						
Malaria.....	1,272	28.17	1,542	33.48	1,569	34.49	1,532	31.12	1,812	35.77	1,414	28.60	1,368	25.74	1,715	32.75	1,775	34.45	1,574	23.33	1,497	28.24	1,453	23.30	593	9.07	594	9.07	594	9.07	594	9.07	594	9.07	594	9.07				
All other causes.....	274	47.34	211	15.30	248	17.14	582	11.83	485	9.58	610	11.80	715	13.64	577	11.01	545	10.40	592	10.83	602	11.53	694	12.99	594	10.71	432	7.30	598	8.25	592	8.27	523	8.36						
Total.....	10,888	247.79	11,241	244.92	11,399	238.50	11,160	225.70	10,874	213.70	11,207	214.80	10,677	202.90	10,414	194.12	10,105	194.00	9,355	174.80	10,008	193.00	9,348	173.70	9,481	174.00	8,622	156.10	10,422	172.00	12,188	193.97	10,493	167.70	10,646	164.60	10,074	154.50		
General death rate.....	24.87	26.31	25.95	25.30	22.76	23.18	21.84	20.63	20.46	19.81	21.03	20.45	19.11	18.57	21.02	18.91	18.71	16.81				

Report of the Bureau of Records.

Births by Nativities of Parents.

Country.	Borough of—										City of New York.	
	Manhattan.		The Bronx.		Brooklyn.		Queens.		Richmond.			
	Nativity of Both Parents.	Nativity of Mother Only. Mixed Parentage.	Nativity of Both Parents.	Nativity of Mother Only. Mixed Parentage.	Nativity of Both Parents.	Nativity of Mother Only. Mixed Parentage.	Nativity of Both Parents.	Nativity of Mother Only. Mixed Parentage.	Nativity of Both Parents.	Nativity of Mother Only. Mixed Parentage.	Nativity of Both Parents.	Nativity of Mother Only. Mixed Parentage.
Austria-Hungary.....	7,570	1,569	382	163	1,269	96	164	75	81	3	9,466	1,906
Bohemia.....	500	144	17	10	..	..	33	18	1	..	551	172
British America.....	168	98	17	43	16	34	12	22	8	15	221	212
England.....	291	509	56	94	155	234	34	70	31	19	567	926
France.....	131	121	8	15	8	15	7	9	8	2	162	162
Germany.....	1,439	730	437	254	1,081	398	428	209	109	39	3,494	1,630
Ireland.....	3,635	1,500	417	215	1,345	580	167	118	84	45	5,648	2,458
Italy.....	13,854	220	1,752	20	8,092	41	857	8	327	2	24,882	291
Russia and Poland.....	11,736	841	1,036	89	10,778	68	401	40	138	4	24,089	1,042
Scotland.....	94	131	29	28	82	78	13	24	8	5	226	266
Sweden.....	260	159	94	35	377	70	36	10	70	2	837	276
Switzerland.....	36	60	11	22	12	16	9	10	2	..	70	117
United States.....	11,704	3,871	3,153	851	13,177	2,576	2,766	675	800	174	31,609	8,147
Other Foreign.....	1,623	585	216	104	824	72	71	28	7	1	2,741	790
Unknown.....	8	3	6	..	..	..	..	..	..	..	14	3
Total.....	53,049	10,550	7,631	1,943	37,216	4,278	4,998	1,316	1,683	311	104,577	18,398

Report of the Bureau of Records.

Report of Births for the Year

CITY OF

Month.	Total.	White.		Colored.		Chinese.		Native Parents.	
		M.	F.	M.	F.	M.	F.	M.	F.
January.....	10,322	5,195	4,946	92	88	1	..	1,341	1,311
February.....	9,397	4,746	4,486	85	77	1	2	1,203	1,126
March.....	10,463	5,312	4,963	90	90	1	1	1,369	1,289
April.....	9,645	4,814	4,676	81	74	..	..	1,270	1,261
May.....	8,675	4,504	4,027	72	71	1	..	1,197	1,110
June.....	9,812	4,917	4,742	78	74	..	1	1,304	1,281
July.....	10,813	5,368	5,287	81	76	..	1	1,479	1,458
August.....	10,162	5,213	4,782	89	78	..	..	1,327	1,268
September.....	9,932	5,068	4,700	83	77	2	2	1,382	1,224
October.....	9,889	5,035	4,693	80	79	1	1	1,252	1,184
November.....	11,188	5,121	4,932	71	62	1	1	1,261	1,183
December.....	13,677	6,851	6,641	98	86	1	..	1,786	1,743
Total.....	122,975	62,144	58,875	1,000	938	9	9	16,171	15,438

BOROUGH

Month.	Total.	White.		Colored.		Chinese.		Native Parents.	
		M.	F.	M.	F.	M.	F.	M.	F.
January.....	5,334	2,659	2,547	69	58	1	..	455	500
February.....	5,179	2,632	2,429	60	55	1	2	529	433
March.....	5,475	2,751	2,596	57	69	1	1	545	495
April.....	4,970	2,440	2,424	54	52	..	..	465	469
May.....	4,516	2,321	2,084	60	50	1	..	465	442
June.....	5,290	2,683	2,487	63	56	..	1	502	489
July.....	5,505	2,689	2,698	59	58	..	1	510	535
August.....	5,208	2,695	2,416	45	52	..	..	478	457
September.....	5,178	2,579	2,484	62	49	2	2	508	423
October.....	5,149	2,586	2,435	63	63	1	1	488	449
November.....	5,151	2,558	2,593	50	38	1	1	485	443
December.....	6,644	3,245	3,261	71	66	1	..	562	577
Total.....	63,599	31,838	30,364	713	666	9	9	5,992	5,712

Report of the Bureau of Records.

Ending December 31, 1909.

NEW YORK.

Foreign Parents.		Mixed Parentage.		Unknown Parentage.		Attended by Physicians.	Attended by Midwives.	Apparently Illegitimate.	Twins.	Triplets.
M.	F.	M.	F.	M.	F.					
3,338	3,114	573	558	36	51	6,411	3,911	161	91	5
3,059	2,895	531	512	39	32	5,599	3,888	159	72	2
3,413	3,184	584	459	37	28	6,153	4,310	178	82	..
3,071	2,914	517	550	37	25	5,639	4,006	145	74	..
2,831	2,474	512	471	37	43	4,968	3,707	171	83	..
3,136	2,993	491	498	64	45	5,807	4,005	191	65	..
3,347	3,327	593	554	30	25	6,447	4,366	146	88	1
3,322	2,946	621	619	32	27	6,054	4,108	157	76	1
3,154	3,031	577	496	40	28	5,880	4,052	132	70	2
3,275	3,039	550	513	33	37	5,708	4,181	99	71	1
3,402	3,269	505	519	25	24	5,705	4,483	100	86	1
4,309	4,182	807	764	48	38	9,078	4,599	133	112	..
39,657	37,368	6,867	6,613	458	403	73,359	49,616	1,772	970	13

OF MANHATTAN.

Foreign Parents.		Mixed Parentage.		Unknown Parentage.		Attended by Physicians.	Attended by Midwives.	Apparently Illegitimate.	Twins.	Triplets.
M.	F.	M.	F.	M.	F.					
1,984	1,806	255	251	35	48	3,440	1,894	137	58	3
1,883	1,791	243	230	38	32	3,055	2,124	129	46	1
1,984	1,891	247	255	33	25	3,211	2,264	110	58	..
1,748	1,734	246	249	35	24	2,864	2,106	118	49	..
1,632	1,448	257	206	28	38	2,709	1,807	127	59	..
1,935	1,797	251	217	58	41	3,220	2,070	158	42	..
1,931	1,960	280	243	27	19	3,291	2,214	111	64	1
1,939	1,690	294	296	29	25	3,168	2,040	119	50	1
1,838	1,831	263	261	34	20	3,077	2,191	106	44	2
1,839	1,787	242	231	31	32	2,866	2,283	82	50	1
1,894	1,855	209	223	21	21	2,866	2,285	84	58	..
2,401	2,419	314	297	40	34	4,295	2,349	108	62	..
23,058	22,009	3,101	2,959	409	359	38,062	25,537	1,419	640	9

Report of the Bureau of Records.

Marriages Reported During the

CITY OF

Month.	Total.	White.		Black.		Chinese.		Single.	
		M.	F.	M.	F.	M.	F.	M.	F.
January.....	3,392	3,275	3,275	117	117	..	..	3,144	3,182
February.....	3,370	3,281	3,279	88	91	I	..	3,104	3,140
March.....	2,870	2,802	2,803	67	67	I	..	2,622	2,684
April.....	2,981	2,891	2,891	80	89	I	I	2,716	2,772
May.....	2,811	2,746	2,750	64	61	I	..	2,551	2,580
June.....	4,702	4,636	4,638	62	62	4	2	4,347	4,434
July.....	3,552	3,462	3,463	89	89	I	..	3,282	3,326
August.....	2,760	2,701	2,701	59	59	2	..	2,498	2,541
September.....	3,369	3,291	3,292	78	76	..	I	3,112	3,130
October.....	3,897	3,777	3,775	120	122	..	..	3,589	3,638
November.....	4,113	4,044	4,043	69	70	..	..	3,866	3,879
December.....	3,696	3,608	3,608	88	88	..	..	3,404	3,455
Total.....	41,513	40,514	40,518	990	991	9	4	38,175	38,770

BOROUGH OF

Month.	Total.	White.		Black.		Chinese.		Single.	
		M.	F.	M.	F.	M.	F.	M.	F.
January.....	2,279	2,190	2,190	89	89	..	..	2,119	2,124
February.....	2,233	2,163	2,161	69	72	I	..	2,049	2,068
March.....	1,882	1,836	1,836	46	46	..	..	1,720	1,766
April.....	2,004	1,938	1,938	66	66	..	..	1,829	1,849
May.....	1,763	1,715	1,718	47	45	I	..	1,599	1,593
June.....	2,936	2,887	2,888	46	46	3	2	2,708	2,741
July.....	2,181	2,122	2,122	59	59	..	..	2,017	2,020
August.....	1,742	1,697	1,697	45	45	..	..	1,577	1,596
September.....	2,205	2,141	2,142	64	62	..	I	2,035	2,033
October.....	2,408	2,322	2,321	86	87	..	..	2,220	2,213
November.....	2,556	2,507	2,507	49	49	..	..	2,367	2,397
December.....	2,500	2,437	2,437	63	63	..	..	2,305	2,318
Total.....	26,689	25,955	25,957	729	729	5	3	24,545	24,718

Report of the Bureau of Records.

Year Ending December 31, 1909.

NEW YORK.

Widowed.		Divorced.		Native.		Foreign.		Religious Marriages.				Civil Marriages.
M.	F.	M.	F.	M.	F.	M.	F.	Cath- olic.	Protes- tant.	Jewish	Ethi- cal Cul- ture.	
224	180	24	30	1,119	1,249	2,273	2,143	851	868	1,108	6	559
242	205	24	25	1,173	1,256	2,197	2,114	1,161	876	874	1	458
228	164	20	22	846	1,007	2,024	1,863	561	773	1,282	1	253
243	183	22	26	1,186	1,316	1,795	1,665	861	994	531	4	591
248	197	12	34	908	1,025	1,903	1,785	1,035	766	565	2	443
326	235	29	33	1,760	1,952	2,942	2,750	1,236	1,635	1,508	4	319
252	205	18	21	1,462	1,583	2,000	1,969	1,236	1,119	619	1	577
236	190	26	29	902	963	1,858	1,797	798	759	866	..	337
232	204	25	26	1,195	1,323	2,174	2,046	1,263	886	703	..	517
280	227	28	32	1,465	1,619	2,432	2,278	1,277	1,298	676	3	643
282	200	25	34	1,490	1,603	2,623	2,510	1,419	1,283	1,029	1	381
271	214	21	27	1,307	1,434	2,389	2,262	1,011	977	1,073	1	634
3,064	2,404	274	339	14,813	16,330	26,700	25,183	12,709	12,234	10,834	24	5,712

MANHATTAN.

Widowed.		Divorced.		Native.		Foreign.		Religious Marriages.				Civil Marriages.
M.	F.	M.	F.	M.	F.	M.	F.	Cath- olic.	Protes- tant.	Jewish	Ethi- cal Cul- ture.	
141	127	19	28	695	773	1,584	1,506	493	463	822	6	495
169	146	15	19	712	761	1,521	1,472	715	448	674	1	395
147	96	15	20	475	582	1,407	1,300	368	406	964	1	203
161	132	14	23	681	762	1,323	1,242	576	481	403	4	540
155	143	9	27	495	560	1,268	1,203	537	407	410	2	407
206	169	22	26	928	1,055	2,008	1,881	721	790	1,146	4	275
151	144	13	17	754	825	1,427	1,356	733	475	429	1	543
146	120	19	26	524	565	1,218	1,177	493	358	606	..	291
151	152	19	20	705	787	1,500	1,418	740	471	530	..	464
170	166	18	29	756	848	1,652	1,560	728	579	490	1	610
174	130	15	29	791	800	1,765	1,696	758	655	804	1	338
178	160	17	22	765	849	1,735	1,651	609	457	839	1	594
1,949	1,685	195	286	8,281	9,227	18,408	17,462	7,411	5,990	8,111	22	5,155

Summaries of the Thermometer Readings (Wet Bulb) for the Year 1909, and Also for the Past 41 Years, from 1868 to 1910, Fahrenheit Degrees.

MONTHS.	1909.				41 YEARS.			
	Maximum.		Minimum.		Maximum.		Minimum.	
	Mean. Degrees.	Date. Degrees.	Mean. Degrees.	Date. Degrees.	Mean. Degrees.	Date. Degrees.	Mean. Degrees.	Date. Degrees.
January.....	33.1	5.00 P.M., 5th.	56	3.00 A.M., 10th.	28.5	61	2.00 P.M., 23d, 1906.	9.00 A.M., 24 th , 1882.
February.....	35.5	1.00 P.M., 10th.	8	7.00 A.M., 1st.	28.6	61	4.00 P.M., 28th, 1903.	7.00 A.M., 10th, 1899.
March.....	34.9	3.00 P.M., 10th.	22	7.00 A.M., 5th.	34.6	68	3.00 P.M., 29th, 1907.	9.00 P.M., 5th, 1872.
April.....	44.7	5.00 P.M., 7th.	24	6.00 A.M., 11th.	44.3	78	2.00 P.M., 17th, 1896.	9.00 P.M., 4th, 1874.
May.....	54.0	4.00 P.M., 15th.	38	5.00 A.M., 2d.	55.2	81	11.00 A.M., 31st, 1885.	4.00 A.M., 3d, 1874.
June.....	65.6	6.00 P.M., 20th.	48	5.00 A.M., 10th.	64.3	88	4.00 P.M., 24th, 1898.	3.00 A.M., 14th, 1875.
July.....	67.2	4.00 P.M., 30th.	52	5.00 A.M., 5th.	68.9	87	6.00 P.M., 20th, 1898.	6.00 A.M., 14th, 1895.
August.....	66.3	5.00 P.M., 38th.	55	5.00 A.M., 31st.	67.2	87	5.00 P.M., 9th, 1896.	6.00 A.M., 27th, 1887.
September.....	61.6	4.00 P.M., 23d.	46	6.00 A.M., 20th.	61.3	84	5.00 P.M., 3d, 1898.	7.00 A.M., 30th, 1888.
October.....	48.5	4.00 P.M., 9th.	33	12.00 P.M., 29th.	50.4	75	4.00 P.M., 5th, 1898.	4.00 A.M., 31st, 1869.
November.....	46.3	4.00 P.M., 12th.	31	12.00 P.M., 30th.	40.3	69	3.00 P.M., 9th, 1895.	8.00 A.M., 30th, 1875.
December.....	30.9	12.00 P.M., 13th.	6	5.00 A.M., 30th.	31.7	61	1.00 P.M., 11th, 1879.	8.00 A.M., 30th, 1886.

Annual Summaries.

1909.		41 YEARS.	
	Degrees.		Degrees.
Mean temperature.....	49.0	Mean temperature.....	47.9
Maximum temperature at 4 00 P.M., July 30th.....	53	Maximum temperature at 4 00 P.M., June 24th, 1888.....	88
Minimum temperature at 3 00 A.M., Jan. 19th.....	5	Minimum temperature at 4 00 A.M., Jan. 24th, 1882.....	-6

Summaries of the Rain and Snow Gauge Readings for the Year 1909, and also for the Past 41 Years, from 1868 to 1910 (Water from Melted Snow Included), Inches.

MONTHS.	1900-					AVERAGE FOR 41 YEARS.						
	Number of Days on which Rain or Snow Fell.	Duration.			Depth of Water.	Depth of Snow.	Number of Days on which Rain or Snow Fell.	Duration.			Depth of Water.	Depth of Snow.
		Days.	Hours.	Minutes.				Days.	Hours.	Minutes.		
January.....	10	3	16	15	3.32	11.25	11	3	16	25	3.46	8.68
February.....	10	2	22	00	4.53	.75	10	3	7	25	3.57	9.15
March.....	9	3	2	15	3.57	4.25	12	3	20	59	3.76	5.74
April.....	13	4	20	30	6.13		9	2	23	27	3.27	.95
May.....	8	1	16	00	1.47		10	1	12	30	3.18	
June.....	10	1	23	50	3.02		9	1	22	55	3.23	
July.....	8	1	22	30	2.17		11	1	22	18	4.47	
August.....	7	2	11	30	8.59		9	2	0	13	4.63	
September.....	7	2	20	45	2.65		8	2	4	21	3.68	
October.....	8	2	19	00	1.60		9	2	14	17	3.74	.01
November.....	8	2	00	00	1.36	.75	9	2	18	49	3.18	1.52
December.....	6	2	10	00	4.29	9.00	10	3	5	6	3.31	6.05

Annual Summaries.

1909.		AVERAGE FOR 41 YEARS.	
Total water fall for the year.....	41.67 inches.	Total water fall for the year.....	43.48 inches.
Total snow fall for the year.....	26.00 "	Total snow fall for the year.....	32.38 "
Total number of days on which rain or snow fell.....	102	Total number of days on which rain and snow fell.....	117
Total duration of rain and snow.....	29 days, 16 hours, 35 minutes.	Total duration of rain and snow.....	33 days, 00 hours, 45 minutes.
Maximum monthly rainfall was September, 1882.....		16.85 inches.	
Minimum monthly rainfall was May, 1887.....		3.41 "	
Maximum daily rainfall was from 4.30 A.M. to 12 P.M. Sept. 23d, 1882.....		8.28 "	

Summaries of Relative Humidity (Saturation Being 100), Aqueous Elastic Force of Vapor (in Inch of Mercury), and Ozone (to Being the Maximum) for the Year 1909, and Also for the Past 41 Years, from 1868 to 1910 (except Ozone, Which is for the Past 32 Years).

MONTHS.	1909.			41 YEARS.		
	Mean Relative Humidity.	Mean Force of Vapor.	Mean Ozone.	Average Relative Humidity.	Average Force of Vapor.	Average Ozone for 32 Years.
January.....	82	.178	1.22	81	.174	1.48
February.....	77	.186	1.64	77	.163	2.10
March.....	72	.170	3.22	76	.196	2.27
April.....	72	.255	2.66	67	.249	2.02
May.....	59	.338	3.25	62	.361	1.52
June.....	67	.560	1.76	66	.547	1.25
July.....	69	.596	2.58	67	.633	1.12
August.....	71	.578	1.22	68	.591	1.16
September.....	71	.490	.33	68	.492	.98
October.....	59	.273	.03	64	.317	.94
November.....	75	.287	.56	75	.268	1.03
December.....	82	.161	1.66	86	.174	1.08

Annual Summaries.

1909.

Mean Relative Humidity..... 71
Mean Force of Vapor..... .339
Mean Ozone..... 1.02

32 AND 41 YEARS.

Mean Relative Humidity.....
Mean Force of Vapor.....
Mean Ozone.....

70
.347
1.41

Report of the Bureau of Records.

Summaries of the Sun Thermometer Readings, Showing the Number of Hours of Sunshine in Fahrenheit Degrees and Number of Days on which no Clouds passed over the Sun for the Year 1909, and also for the past 27 Years, from 1883 to 1910.

MONTHS	1909.					27 YEARS.					
	Mean.	Highest.	DATE.	Greatest Possible Hours of Sunshine.	Actual Number of Hours of Sunshine.	Number of Days on which no Clouds passed over the Sun.	Average for 21 Years.	Highest.	DATE.	Actual Number of Hours of Sunshine.	Number of Days on which no Clouds passed over the Sun.
January.....	51.1	87	1 P.M., 6th.	282	135	7	53.4	112	12 M., 12th, 1890.	137	5
February.....	53.0	90	1 P.M., 21st.	286	147	3	54.3	120	11 A.M., 5th, 1890.	155	6
March.....	58.9	101	2 P.M., 10th.	355	206	6	61.8	122	1 P.M., 23d, 1907.	190	6
April.....	64.8	111	1 P.M., 10th.	381	105	7	70.4	138	2 P.M., 22d, 1886.	222	6
May.....	82.0	119	1 P.M., 15th.	439	279	11	80.9	139	1 P.M., 20th, 1885.	201	7
June.....	91.8	135	2 P.M., 24th.	443	340	13	88.1	142	1 P.M., 21st, 1884.	290	6
July.....	99.4	130	1 P.M., 21st.	459	378	14	97.5	149	2 P.M., 20th, 1885.	292	6
August.....	96.7	139	2 P.M., 8th.	414	366	10	96.0	143	12 M., 22d, 1893.	269	5
September.....	92.1	129	2 P.M., 17th.	362	242	8	92.4	146	12 M., 21st, 1895.	234	6
October.....	77.9	122	11 A.M., 3d.	329	224	14	82.1	141	12 M., 1st, 1884.	189	8
November.....	67.4	104	2 P.M., 2d.	284	163	8	68.4	126	1 P.M., 2d, 1886.	146	6
December.....	56.0	91	1 P.M., 5th.	279	161	7	58.3	116	1 P.M., 23d, 1891.	135	7

Annual Summaries.

1909.

Mean temperature.....	Degrees.	74.2
Maximum temperature at 2.00 P.M., August 8th.....		139.
Number of hours in a year.....		8760.
Greatest possible hours of sunshine.....		4284.
Actual number of hours of sunshine.....		2752.
Number of days in which no clouds passed over the sun.....		111.

27 YEARS.

Mean temperature.....	Degrees.	75.4
Maximum temperature at 2.00 P.M., July 26th, 1885.....		149.
Number of hours in a year.....		8700.
Greatest possible hours of sunshine.....		4284.
Actual number of hours of sunshine.....		2520.
Number of days in which no clouds passed over the sun.....		71.

Summaries of the Barometer Readings for the Year 1909, and Also for the Past 41 Years, from 1868 to 1910. Inches.

MONTHS.	1909.				41 years.			
	Maximum.		Minimum.		Maximum.		Minimum.	
	Mean. Inches.	Inches.	Date.	Inches.	Mean. Inches.	Inches.	Date.	Inches.
January.....	30.031	30.650	11 A.M., 13th.	29.900	29.973	30.804	9 A.M., 2d, 1899.	28.698
February.....	29.849	30.340	10 A.M., 14th.	28.994	29.941	30.924	9 P.M., 5th, 1876.	28.600
March.....	29.734	30.334	6 A.M., 12th.	28.774	29.900	30.814	11 A.M., 5th, 1904.	28.774
April.....	29.672	30.536	9 A.M., 11th.	29.536	29.878	30.568	9 A.M., 8th, 1887.	28.698
May.....	29.855	30.220	10 A.M., 26th.	29.300	29.880	30.431	9 A.M., 10th, 1876.	29.030
June.....	29.912	30.176	11 P.M., 8th.	29.590	29.800	30.452	12 M., 15th, 1884.	29.230
July.....	29.872	30.186	7 A.M., 21st.	29.400	29.880	30.400	9 A.M., 7th, 1892.	29.399
August.....	29.952	30.368	10 A.M., 3d.	29.400	29.917	30.400	11 A.M., 9th, 1904.	29.114
September.....	30.036	30.468	10 A.M., 10th.	29.710	29.984	30.536	2 A.M., 23d, 1904.	29.108
October.....	29.968	30.470	9 A.M., 20th.	29.503	29.959	30.636	9 A.M., 26th, 1879.	29.036
November.....	30.073	30.650	10 A.M., 7th.	29.360	29.948	30.722	10 A.M., 10th, 1894.	28.610
December.....	29.813	30.400	10 A.M., 12th.	28.720	29.958	30.800	9 A.M., 1st, 1887.	28.420

Annual Summaries.

1909.

41 YEARS.

Mean pressure.....	Inches.	Mean pressure.....	Inches.
Maximum pressure at 11 A.M., Jan. 13th.....	29.972	Maximum pressure at 9.00 P.M., Feb. 5th, 1876.....	29.927
Minimum pressure at 3.00 A.M., Dec. 26th.....	28.600	Minimum pressure at 8.00 P.M., Dec. 29th, 1876.....	28.924
	28.720		28.420

NEW YORK METEOROLOGICAL OBSERVATORY, CENTRAL PARK, NEW YORK CITY.
 Table Showing the Mean Monthly Amounts of Ozone for the Past 32 Years. Taken by Schönbein Formula.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Mean for the Year.
1878.....	.71	1.67	2.03	2.16	2.93	2.06	2.29	.97	1.33	1.48	1.08	.61	1.61
1879.....	1.19	2.57	2.25	3.16	1.71	1.83	1.77	1.64	.60	.51	1.53	1.06	1.73
1880.....	1.25	2.32	4.09	2.00	2.73	2.60	2.42	1.83	1.53	.67	.73	2.00	2.08
1881.....	2.74	2.53	2.86	3.16	1.61	3.10	2.51	2.35	2.20	1.58	2.00	2.06	2.40
1882.....	3.03	3.32	3.64	3.32	2.97	1.60	1.32	.96	1.06	1.00	1.73	1.19	2.23
1883.....	2.61	2.53	3.84	2.66	1.09	1.07	1.35	1.82	1.00	.67	1.52	.71	1.73
1884.....	1.45	.78	1.48	1.80	.90	.90	1.38	.67	.80	1.00	.50	1.48	1.10
1885.....	.87	3.25	3.77	2.73	2.64	2.16	1.25	2.70	1.30	2.03	2.00	1.35	2.17
1886.....	1.74	2.57	1.80	1.10	2.09	1.63	1.03	1.05	1.30	.74	.63	1.07	1.49
1887.....	1.48	1.57	2.64	1.83	1.25	.96	1.83	1.41	1.03	.61	1.00	.74	1.19
1888.....	1.35	1.10	2.51	.83	1.03	1.16	1.80	.74	1.16	.41	1.30	.64	1.10
1889.....	1.16	1.35	1.05	.90	.61	.66	1.03	2.23	1.53	1.32	.17	.48	1.11
1890.....	.97	.64	2.03	1.01	1.06	.77	.87	1.10	.73	.77	.00	.32	.86
1891.....	.84	1.17	2.09	2.50	3.03	2.40	1.58	1.16	.47	1.85	1.10	.74	1.57
1892.....	1.06	2.03	2.07	2.16	1.77	.43	1.10	1.22	.80	.67	1.00	.90	1.38
1893.....	2.22	3.25	2.77	3.06	1.48	1.16	1.93	1.96	1.30	1.09	1.60	.07	1.70
1894.....	1.74	2.46	.99	2.00	2.00	1.72	1.07	1.16	.60	.93	.00	1.68	1.56
1895.....	1.80	3.17	3.06	2.30	.71	1.10	1.25	.80	.13	1.03	1.00	2.00	1.01
1896.....	2.89	2.89	3.06	1.10	1.12	1.16	.77	1.41	1.70	1.54	.26	2.00	1.60
1897.....	1.90	2.82	2.09	2.16	2.22	2.53	.96	1.93	1.86	1.84	1.60	1.06	1.01
1898.....	1.86	1.75	1.80	2.23	1.51	.90	.54	1.45	.80	1.35	1.96	1.29	1.58
1899.....	2.96	2.96	3.16	1.66	1.58	1.33	1.22	.51	1.50	1.03	.90	1.06	1.88
1900.....	1.77	2.25	1.41	1.06	1.61	1.76	.35	.01	.86	.05	.40	.87	.88
1901.....	1.00	2.60	1.51	2.00	.80	.86	.12	.58	.86	.32	1.03	1.03	1.07
1902.....	1.19	2.10	1.25	1.00	1.09	.53	.69	.09	.10	.12	.20	.87	.72
1903.....	.83	1.50	.83	1.96	.87	.70	.41	.38	.60	.93	1.16	.77	.01
1904.....	2.16	1.62	1.93	1.40	.16	.50	.58	.80	.50	.03	1.30	1.64	1.13
1905.....	2.45	2.67	1.45	1.56	.48	.70	.22	.35	.20	.32	.36	.22	.01
1906.....	1.60	1.60	1.60	1.23	.74	.96	.35	.35	.53	.25	.76	1.54	.85
1907.....	1.32	2.64	2.58	3.06	2.70	.56	.20	1.38	.45	.00	.40	.06	1.80
1908.....	.29	.27	.32	1.53	.67	.30	.00	.32	1.30	.45	.10	.38	.40
1909.....	1.22	1.64	3.22	2.60	3.25	1.76	2.58	1.22	.33	.03	.56	1.06	1.02
Mean for 32 years.....	1.48	2.10	2.27	2.02	1.52	1.25	1.12	1.16	.98	.94	1.02	1.08	1.41

NEW YORK METEOROLOGICAL OBSERVATORY.

SUMMARIES OF ANNUAL TABLES FOR THE YEAR 1909, AND COMPARISONS WITH THE PAST FORTY-ONE YEARS.

Summaries of the Prevailing Direction of Wind, Horizontal Movement of Wind (in Miles), Maximum Force of Wind (in Pounds Per Square Foot) for the Year 1909, and Also for the Past 41 Years, from 1868 to 1910.

MONTHS.	1909.						41 YEARS.					
	Prevailing Direction.	Total Miles.	Hourly Mean.	Maximum Movement in 24 hours.	Date.	Maximum Force.	Prevailing Direction.	Average Total Miles.	Hourly Mean.	Maximum Movement in 24 hours.	Date.	Maximum Force.
January.....	N W	5,000	7.9	393	28th	9½	W N W	6,063	8.1	566	23d, 1882.	44
February.....	N W	6,104	9.0	515	25th	10½	W	5,972	8.8	729	27th, 1886.	37½
March.....	W N W	6,730	8.0	433	24th	11½	N W	6,483	8.7	636	12th, 1888.	36½
April.....	S E	5,869	8.0	340	13th	16½	W N W	5,637	7.8	535	2d, 1870.	33½
May.....	N E	4,769	6.4	360	22d	11½	S E	4,602	6.2	579	2d, 1869.	29
June.....	W	3,668	5.8	246	18th	4	N W	4,054	5.6	381	1st, 1889.	26
July.....	W N W	4,336	5.8	277	3d	8	N W	3,987	5.3	349	12th, 1888.	29
August.....	N E	*3,890	5.2	251	17th	7½	N W	3,691	4.9	470	14th, 1873.	34½
September.....	N	4,037	5.6	225	5th	5	S W	4,608	5.5	423	10th, 1889.	23
October.....	N W	4,925	6.6	342	29th	7	N W	4,878	6.5	460	24th, 1886.	24½
November.....	W	5,847	8.1	427	24th	18½	N W	5,512	7.6	576	20th, 1869.	49½
December.....	W	7,258	9.7	500	26th	26½	W	6,137	8.2	578	10th, 1872.	33½

Annual Summaries.

1909.			41 YEARS.		
Prevailing Direction.....	W	7.2 miles.	Prevailing Direction.....	N. W	61.084 miles.
Total for the Year.....	63,273	7.2	Total for the Year.....	61.084	6.9
Hourly Mean.....	7.2	515 lbs.	Hourly Mean.....	720	49½ lbs.
Maximum Movement in 24 hours, Feb. 25th.....	515		Maximum Movement in 24 hours, 3.50 P. M., Feb. 27th, 1886	720	
Maximum Force at 0.30 A. M., Dec. 26th.....	26½		Maximum Force at 7.30 P. M., Nov. 12th, 1883.....	49½	

Summaries of the Thermometer Readings (in Shade) for the Year 1909, and Also for the Past 41 Years, from 1868 to 1910, Fahrenheit Degrees.

1909.		41 YEARS.							
MONTHS.	Maximum.		Minimum.		Mean.	Maximum.		Minimum.	
	Degrees.	Date.	Degrees.	Date.		Degrees.	Date.	Degrees.	Date.
January.....	34.7	12.00 N., 5th.	5	3.00 A. M., 10th.	30.8	4.00 P. M., 2d, 1876	6	9.00 A. M., 24th, 1882.	
February.....	37.7	1.00 P. M., 10th.	8	7.00 A. M., 1st.	30.6	4.00 P. M., 23d, 1874	6	7.00 A. M., 10th, 1880.	
March.....	37.8	3.00 P. M., 10th.	23	7.00 A. M., 1st.	37.3	2.00 P. M., 20th, 1876	3	9.00 A. M., 5th, 1872.	
April.....	48.4	3.00 P. M., 10th.	24	6.00 A. M., 11th.	48.8	3.00 P. M., 18th, 1866	20	9.00 P. M., 4th, 1874.	
May.....	61.0	3.00 P. M., 15th.	41	5.00 A. M., 2d.	60.7	4.00 P. M., 27th, 1880	32	5.00 A. M., 7th, 1879.	
June.....	72.1	5.00 P. M., 20th.	55	5.00 A. M., 10th.	70.4	4.00 P. M., 20th, 1874	47	5.00 A. M., 13th, 1888.	
July.....	73.5	3.00 P. M., 30th.	57	5.00 A. M., 5th.	75.3	3.00 P. M., 2d, 1901	54	5.00 A. M., 17th, 1879.	
August.....	72.2	4.00 P. M., 8th.	57	5.00 A. M., 31st.	73.3	3.00 P. M., 9th, 1866	50	6.00 A. M., 28th, 1885.	
September.....	66.8	4.00 P. M., 23d.	51	6.00 A. M., 20th.	67.0	3.00 P. M., 7th, 1881	39	6.00 A. M., 31st, 1887.	
October.....	54.5	4.00 P. M., 9th.	37	12.00 P. M., 20th.	55.4	3.00 P. M., 1st, 1881	29	8.00 A. M., 30th, 1875.	
November.....	49.5	4.00 P. M., 12th.	31	12.00 P. M., 30th.	43.9	4.00 P. M., 12th, 1879	25	8.00 A. M., 30th, 1880.	
December.....	32.4	2.00 P. M., 6th.	6	5.00 A. M., 30th.	34.2	4.00 P. M., 14th, 1881	6	8.00 A. M., 30th, 1880.	

Annual Summaries.

1900.		41 YEARS.	
Mean temperature	Degrees, 53.3	Mean temperature	Degrees, 52.3
Maximum temperature at 3.00 P. M., July 30th	93	Maximum temperature at 3.00 P. M., Sept. 7th, 1881	101
Minimum temperature at 3.00 A. M., Jan. 19th	5	Minimum temperature at 9.00 A. M., Jan. 24th, 1882	-6

